

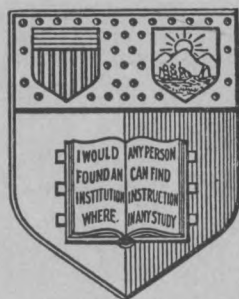
CORNELL UNIVERSITY OFFICIAL PUBLICATION

FEBRUARY 24, 1953

Summer Session

ANNOUNCEMENT FOR SESSIONS

JULY 6 - AUGUST 15, 1953



SUMMER SESSION OFFICE

The Summer Session office is in Room 245, Goldwin Smith Hall; the telephone of the office and the Director is 4-3211, Extension 2924. The office will be open from 8 a.m. to 12 noon and 2 p.m. to 4 p.m., except Saturday, during the six-week Summer Session; on Saturday the office will close at 12 noon. Miss Anita Rynone is Secretary; Miss Alice Appleby, Information Assistant.

ADMINISTRATIVE BOARD

C. Arnold Hanson, Ph.D., Professor of Industrial and Labor Relations

Glenn W. Hedlund, Ph.D., Professor of Business Management

Charles Williams Jones, Ph.D., Professor of English and Dean of the Graduate School

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Andrew Leon Winsor, Ph.D., Director of the School of Education and Head of the Department of Rural Education

CORNELL UNIVERSITY OFFICIAL PUBLICATION

Published by Cornell University at Ithaca, New York, every two weeks throughout the year. Volume 44, February 24, 1953. Number 18. Entered as second-class matter, December 14, 1916, at the post office at Ithaca, New York, under the act of August 24, 1912.

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Calendar

REGULAR SIX-WEEK SESSION

- July 6, *Monday* Registration for the regular six-week Summer Session, 9 a.m. to 12 noon and 1:30 p.m. to 3:30 p.m. in Barton Hall. Fees are due for payment at the Treasurer's office, 260 Edmund Ezra Day Hall.
- July 7, *Tuesday* Instruction begins at the time and place announced for each course. Registration is continued at the Summer Session office.
- July 10, *Friday* Last day for payment of fees at the Treasurer's office, which closes at 4 p.m.
- July 11, *Saturday* Last day for making changes of registration at the Summer Session office, which closes at 12 noon.
- August 14, *Friday* Final examinations begin; schedule on page 23.
- August 15, *Saturday* Summer Session ends, 4 p.m.

SPECIAL PROGRAMS

- June 15 to July 25 Summer Field School in Geology.
- June 17 to July 24 Workshop: Care of Young Children in New York State Migrant Camps.
- June 29 to August 15 School of Hotel Administration Unit Courses.
- July 6 to July 24 Extension Service Summer School.
- August 2 to August 7 Summer Work Conference: School of Education.

Be sure to bring this Announcement with you for use on registration day and throughout the Summer Session.

General Information

THE ADMINISTRATIVE Board of the Summer Session offers academic instruction for both graduates and undergraduates by members of the faculties of the Graduate School, of the Colleges of Arts and Sciences, Engineering, Agriculture, and Home Economics, and of the Schools of Education, Industrial and Labor Relations, and Hotel Administration.

This unification of the curricula and faculties of the several schools and colleges makes possible the adaptation of academic work to the special needs of summer students. Undergraduate courses are equivalent to required and elective collegiate courses leading to the baccalaureate. Advanced courses, seminars, and informal study, treating topics of concern to students with special interests, are designed with particular regard for what can satisfactorily be treated in a short term and in the summertime. The needs of teachers are met not only in the workshops, seminars, and professional courses in Education, but also in courses in a wide number of subject fields. A number of unit programs and special courses are offered for professional workers other than teachers.

All necessary facilities of the University are available to students registered in the Summer Session: libraries, classrooms, and laboratories; residence halls, dining rooms, and cafeterias; health services and medical care; counseling services; student union, chapel, playing fields, and recreational areas.

ADMISSION

The Summer Session's purpose is to place the facilities of the University at the disposal of persons who can use them to good advantage and for serious purposes during the summer period. Admission will not be granted to persons who are inadequately trained for the work they propose, or whose records in Cornell University or elsewhere are unsatisfactory. Nor will admission be granted to persons whose purposes seem inadequate or inappropriate or better served by other work at other institutions.

Admission of undergraduate or graduate students to the Summer Session establishes no priority with respect to admission to the regular terms. Students seeking admission to an undergraduate college in the

fall should apply to the Director of Admissions, 233 Edmund Ezra Day Hall.

Students are eligible for admission to the Summer Session in three categories as follows:

UNDERGRADUATES . . . An undergraduate candidate for the Bachelor's degree, at Cornell University or elsewhere, *is required to preregister for a program of courses totaling between five and seven credit hours, all of which are approved by the dean, registrar, or other appropriate officer of his college for credit toward graduation.* This preregistration, to be made by completing the undergraduate application form, is final and can be changed only by filing a new application. The special application form for undergraduates will be mailed by the Director on request.

Sophomore standing or above is required of undergraduates regularly attending institutions other than Cornell University. By definition, a student has achieved sophomore standing if he has completed one-fourth of the credit requirements for the Bachelor's degree before June 15, 1953.

June 20, 1953, is the closing date for admission of undergraduates.

GRADUATES . . . Any graduate of a recognized four-year college or normal school is eligible for admission to the Summer Session upon receipt by the Director of the Summer Session of a graduate application form. Graduate students are requested to preregister for a program of courses totaling from four to seven credit hours. This preregistration is made by completing the graduate application form and returning it to the Summer Session office by June 20, 1953. A graduate or special student may register as late as July 6, but is advised to select courses by June 20 in order to ensure a place in classes. A course program may be changed on registration day, July 6, in Barton Hall, if the student finds classes to which he can be admitted. Admission to the Summer Session in this category does *not* constitute admission to the Graduate School of Cornell University as a candidate for an advanced degree. See page 11 for information regarding admission to the Graduate School.

SPECIAL STUDENTS . . . Applicants over twenty-four years of age who are not candidates for an academic degree will be admitted to the Summer Session for courses which will help their vocational and personal development.

APPLICATION FOR ADMISSION . . . Application for admission to the Summer Session of 1953 must be made on a special form mailed by the Director of the Summer Session on request. In most cases the information called for on this form will be sufficient.

Registration coupons, necessary for registration in the Summer Session, will be mailed to the applicant after favorable action.

PROGRAM OF STUDY

The usual Summer Session program is from four to seven credit hours. Five credit hours constitutes a complete program for undergraduate students and four credit hours a complete program for graduate and special students in the six-week session. Students are advised against registering for more than seven hours.

Undergraduates are required to register for a program of between five and seven hours of credit. The permission of the Director of the Summer Session is required for programs totaling less than this, and the written permission of the student's dean is necessary for programs as heavy as eight credit hours, the maximum load. Permission for an eight-hour program is usually granted only to those students with a high academic average.

Graduates and special students not enrolled in the Graduate School of Cornell University are required to register for at least four hours of credit and may not register for more than seven hours of credit except by permission of the Director.

Graduate students matriculated in the Graduate School of Cornell University may, upon the recommendation of their respective committee chairmen, register for as many as eight hours of credit.

Special permission for registration in certain restricted courses, as noted in the course descriptions (pages 23-63), should be obtained, before filing the application blank, by writing to the instructor named.

ACADEMIC CREDIT

All courses offered in the Summer Session are assigned appropriate hours of credit. Registration for a program of courses implies registration *for credit*. A student wishing to attend regularly a class for which he is not registered should obtain an auditor's permit (page 8).

CREDIT . . . There is, in general, no sharp distinction between undergraduate and graduate courses. In this Announcement each course is marked immediately after the title in one of three ways:

(U) . . . These courses are intended primarily for undergraduates. Students registered in the Graduate School of Cornell University will not receive credit for these courses toward an advanced degree unless such credit is specifically recommended by the committees in charge of their work.

(U,G) . . . These courses are offered both at the graduate and the undergraduate level. Graduate students who are candidates for advanced degrees or who wish certification for work done at the graduate level must indicate at the time of registration their intention to complete the course at the graduate level and must be prepared to do any additional

work that may be required. Such students registered in "U,G" courses should consult with their instructors early in the session to see that the level is properly recorded.

(G) . . . These courses are intended primarily for students who are candidates for advanced degrees, for teachers, and for others who wish certification to accrediting agencies for work done at the graduate level. Undergraduates with adequate preparation may register for these courses only after receiving permission from the instructors in charge.

No student may receive credit for more than eight semester hours of work done in a single six-week Summer Session.

CREDIT TOWARD DEGREES AT CORNELL UNIVERSITY . . . A student matriculated in an undergraduate school or college of Cornell University will be admitted to the Summer Session only after the appropriate officer from the following list has approved and signed his application for admission.

College of Agriculture: Professor J. P. Hertel.

College of Architecture: Dean T. W. Mackesey or Professor J. A. Hartell.

College of Arts and Sciences: Associate Dean M. L. Hulse.

College of Home Economics: The student's counselor.

College of Engineering: *Chemical*, Professor C. C. Winding; *Civil*, Professor N. A. Christensen; *Electrical*, Professor H. G. Smith; *Mechanical*, Professor G. R. Hanselman.

School of Hotel Administration: Professor H. B. Meek.

School of Industrial and Labor Relations: Professor C. A. Hanson.

This approval will indicate that the school or college will accept credit in the stipulated courses as credit toward a degree.

CREDIT IN INSTITUTIONS OTHER THAN CORNELL UNIVERSITY . . . An undergraduate enrolled in another institution, before admission to the Summer Session, will submit as part of his application a program of courses approved for credit by an officer of the institution in which he is a candidate for a degree. When admitted, the student will be preregistered for those approved courses. At the end of the Session an official transcript of the Summer Session record will be sent to the institution. The transcript will show what courses have been taken, the amount of credit in semester hours, and the grades received.

GRADES . . . All grades are reported in a numerical scale from 0 to 100. If a student *for medical or other important reasons* must be absent from the last class meeting and cannot make up the work before the last day of instruction, he may request the instructor to report his grade as *Absent*, together with a conditional numerical grade which may be used as the

final recorded mark if the course work is not completed by January 1, 1954. It is the student's responsibility to make such specific arrangements with his instructors when necessary.

No other grades, for instance, *Incomplete*, are given in the Summer Session.

The colleges of Cornell University regard the grade of 60 as the lowest passing grade.

REGISTRATION

Registration for the six-week Summer Session will take place on Monday, July 6, in Barton Hall. Each student's certificate of admission, which is included with the registration coupons, will give the hour of the day at which he will be admitted. Directions for registration procedure will be issued at the entrance. Students who for any reason have not received a certificate of admission will report to the Admissions table at Barton Hall after 9 a.m.

Graduate students who are candidates for degrees at institutions other than Cornell University, and who are planning to obtain credit toward these degrees by their Summer Session work, do *not* register in the Cornell Graduate School, but only in the six-week Summer Session. Before so registering they should arrange for the accrediting of this work by the institutions from which they plan to take their degrees. Other students who hold Bachelors' degrees but who are not candidates for advanced degrees will also register only in the six-week Summer Session.

Registration in the University is required for admission to any of the exercises of the Summer Session.

UNIT COURSES . . . In the curriculum following, certain courses are announced that are less than six weeks in duration. Usually such courses are designed to occupy the full time of the student. It is therefore impossible for students registered in the six-week session to register for a unit course, or for students in a unit course to enroll in other courses. The special times and places for registration in unit courses are announced in the course descriptions.

CHANGES OF REGISTRATION . . . All changes of registration after Monday, July 6, must be made by appearing at the Summer Session office, 245 Goldwin Smith Hall, before 12:00 noon on July 11. When a change of registration involves enrollment in another course, the permission of the instructor of the new course is necessary.

An undergraduate whose program requires change on registration day should report to the Director and must have obtained approval of the change from an officer of the institution in which he is a degree candidate.

Changes in registration include cancellation of a course, change from

one course to another, change in graduate or undergraduate level, addition of a course to a program, or change from credit to auditor's status in a course.

Changes in registration cannot be effected by notifying the instructor of a given course. Students must appear at the Summer Session office before 12:00 noon on July 11 in order to make program changes.

AUDITORS . . . Admission to classrooms during the Summer Session is restricted to students registered for the Session. A student thus duly registered may occasionally visit any class; but if he wishes to attend regularly classes for which he is not registered, he must secure an auditor's permit. Such permits will be granted whenever the student can show a serious purpose in such attendance, if his program is light enough to allow the additional appointment. *Auditors do not take part in the work of the courses which they visit, and no record of such attendance is made.* Auditors' permits are not issued on registration day; they may be secured on Tuesday, July 7, and at any time thereafter at the Summer Session office.

WITHDRAWALS FROM THE SUMMER SESSION . . . See page 9 for information concerning withdrawal.

FEES

All fees are due and payable at the Treasurer's office in Edmund Ezra Day Hall on registration day, July 6. The last day for payment of fees without penalty is Friday, July 10. The Treasurer's office closes at 4:00 p.m.

TUITION . . . Undergraduate candidates for the Bachelor's degree at Cornell or elsewhere pay a tuition fee of \$115 for the six-week Summer Session. Graduate and special students pay \$90.

An undergraduate candidate for the Bachelor's degree in the Colleges of Agriculture or Home Economics, or in the School of Industrial and Labor Relations, at Cornell, who is a resident of New York State and who is approved by the appropriate officer of his college, will be awarded a partial tuition scholarship of \$25, reducing the tuition charge in this case to \$90.

Tuition for unit courses is charged at the rate of \$17.50 per week, which charge includes a pro rata share of the student union fee and administration fee. (Health and hospital services are not available to unit course registrants.)

FEES AND DEPOSITS . . . Six-week Summer Session students will pay, in addition to tuition, a general fee of \$15, which entitles them to health

and infirmary services (see page 13), administration services, and student union membership. Fees for laboratories, field trips, and incidental expenses are charged in certain courses. Special fees are charged for individual instruction in music, golf, tennis, and other subjects.

REGISTRATION DEPOSIT . . . A student who is registering as a candidate for a degree for the first time in the Graduate School or in one of the other schools or colleges of Cornell University must pay a registration deposit of \$30, unless he has already paid this deposit as an undergraduate at Cornell University. A student registered only in the six-week Summer Session *does not* pay this deposit.

A matriculation fee of \$18 is charged against this \$30 deposit upon registration, and the balance becomes a guaranty fund refunded upon graduation or permanent withdrawal. For further information about this deposit, the *General Information* booklet, which may be obtained upon request from Cornell University Official Publication, Edmund Ezra Day Hall, should be consulted.

WITHDRAWAL FROM THE SUMMER SESSION . . . A student may arrange for withdrawal at any time by canceling his registration at the *Summer Session office*, 245 Goldwin Smith Hall. In such cases, the Treasurer may refund a part of the tuition and general fee, or cancel a part of the obligation that the student has incurred for tuition, provided the reason for withdrawal is stated in writing and is satisfactory to the Treasurer and the Registrar. In such cases the student is required to pay 20 per cent of the term's tuition and general fee for each week or fraction of a week between the first registration day and the date of his certificate of withdrawal, unless the withdrawal is made before Friday, July 10. No refund of the health services fee will be made for a student who has used the University's infirmary or hospital services.

OTHER REGULATIONS CONCERNING FEES . . . Any student, graduate or undergraduate, except as hereinafter provided, who fails to pay his tuition, fees, and other indebtedness, or, if entitled to free tuition fails to claim the same at the Treasurer's office and pay his fees within the time prescribed by the University, is thereby dropped from the University. When in his judgment the circumstances in a particular case so warrant, the Treasurer may allow an extension of time to complete payments. For such an extension, the student will be assessed a fee of \$2. A reinstatement fee of \$5 will be assessed in the case of any student who is permitted to continue or return to classes after being dropped from the University for default in payments. For reasons satisfactory to the Treasurer and the Registrar, which must be presented in writing, the above assessment may be waived in any individual case.

Any tuition fee or other fee may be changed by the Trustees to take effect at any time without previous notice.

CASHING OF CHECKS . . . The Treasurer of the University accepts checks in settlement of charges payable at his office, but a rule of the Board of Trustees forbids him to cash any credit instrument, even to the extent of accepting a check or draft in amount greater than the sum due and returning the excess in cash. Students are therefore advised to open an account in an Ithaca bank as soon as they arrive in town, or else to provide themselves with travelers' checks, drafts on New York City banks, money orders, or other forms of credit instrument such as a bank will cash in the ordinary course of business.

VETERANS

Veterans who plan to study under Veterans Administration educational benefits during the Summer Session should observe the following instructions.

PUBLIC LAW 346 AND 550 VETERANS . . . Veterans enrolling for the first time under educational benefits, or veterans whose last period of training was not at Cornell, must present a Certificate of Eligibility for the course of study they plan to pursue. Application for the certificate should be made to the local Veterans Administration Regional Office, or, in the case of veterans who have had previous training, to the office where their records are located.

Veterans enrolled and using benefits at Cornell during the spring term, 1953, may use their benefits during the Summer Session, providing there is no change of course or objective, by completing enrollment forms in the Treasurer's office. Veterans making a change of course or objective must apply to the Veterans Administration for approval of the change prior to the close of the spring term, 1953. Application forms are available at the Treasurer's office.

Teachers who were enrolled under Public Law 346 benefits at Cornell during the Summer Session, 1952, who have not been in training since that time, must bring with them a statement in duplicate from their school authorities to the effect that they were teaching during the school year of 1952-53.

A Public Law 346 veteran who fails to present the required papers or complete the necessary forms will be expected to pay tuition and fees, subject to such reimbursement as may eventually become due. Public Law 550 veterans pay tuition and fees at the regular time.

PUBLIC LAW 16 VETERANS . . . Veterans under this law must arrange for approval by the Veterans Administration prior to registration in the Summer Session.

All questions concerning eligibility for Veterans Administration educational benefits should be directed to the nearest Veterans Administration Office.

THE GRADUATE SCHOOL

The Graduate School is an administrative unit entirely separate from the administration of the Summer Session. Only candidates for advanced degrees at Cornell University are registered in the Graduate School in the summertime. Students who take course work at the graduate level in the Summer Session but who are not candidates for an advanced degree at Cornell University have no connection with the Graduate School.

CREDIT FOR ADVANCED DEGREES . . . Summer Session credits may be used for fulfillment of requirements for the following advanced degrees, under regulations of the Faculty of the Graduate School:

- Master of Arts (M.A.)
- Master of Science (M.S.)
- Master of Education (M.Ed.)
- Master of Industrial and Labor Relations (M.I.L.R.)
- Doctor of Education (Ed.D.)
- Doctor of Philosophy (Ph.D.)

Not more than one Summer Session, consisting of a full program of courses at graduate level, taken before a student has been admitted to candidacy for an advanced degree, may be transferred to the Graduate School in fulfillment of degree requirements.

After admission to the Graduate School a candidate may, on recommendation of his graduate committee, complete one year of the residence requirements for the degree by Summer Session study, including the one Summer Session allowed before admission to candidacy. Five Summer Sessions equal one year or two semesters; three Summer Sessions equal the first semester and two Summer Sessions equal the second semester. A candidate who is in residence only during Summer Sessions is expected to continue his studies during the year under the direction of the chairman of his committee.

ADMISSION . . . Students intending to become candidates for an advanced degree at Cornell should write to the Dean of the Graduate School, 125 Edmund Ezra Day Hall, for application blanks and for the *Announcement of the Graduate School*, which outlines courses of study for advanced degrees and regulations governing admission. Applications received before May 1 will be acted upon in time for the accepted candidate to register in the Graduate School on registration day, July 6.

Those who apply after May 1 probably will not be admitted to the Graduate School for the ensuing summer but may take graduate courses in the Summer Session; this work may be transferred to candidacy later, providing it does not exceed the one Summer Session stipulated above and is approved by the candidate's committee.

REGISTRATION DEPOSIT . . . On admission to the Graduate School, the applicant is required to pay the sum of \$30 within twenty days of notification of admission. Eighteen dollars will be used to pay the matriculation fee; the other twelve dollars will be held on deposit in the Treasurer's office until official withdrawal or the granting of the degree, as a guaranty against outstanding bills.

REGISTRATION . . . Students matriculated in the Graduate School must register in both the Summer Session and the Graduate School. Full information and proper forms for registering in the Graduate School are to be obtained at the Graduate School table in Barton Hall on registration day. The registration must be completed within one week of registration day. To register, each candidate must file a Statement of Courses blank, properly approved by his committee chairman. Each *new* candidate must file a Nomination of Committee blank.

Note: Such registration is regarded in the same fashion as registration for a regular semester and affects the deadlines for fulfillment of requirements. For instance, a new candidate must complete his first language requirement within thirty days of Summer Session registration day.

Candidates registered in the Summer Session who were not registered in the preceding spring term but who expect to register in a succeeding regular term for continuation of their candidacy must arrange with the Dean of the Graduate School for permission to register in the regular term.

COMPLETION OF REQUIREMENTS . . . Candidates for advanced degrees who expect to complete requirements and to take their final examinations at the end of the Summer Session should call at the office of the Graduate School not later than the third week of the Session for the necessary instructions and blanks.

CANDIDATES IN THE SCHOOL OF EDUCATION . . . Students interested in the degree of Master of Education (M.Ed.) should consult the *Announcement of the School of Education*, which will be sent upon request to Official Publication, Edmund Ezra Day Hall, Cornell University. The Faculty of the School of Education, functioning as a division of the Faculty of the Graduate School, has special jurisdiction over this degree.

SPECIAL REGULATIONS

CONDUCT AND SCHOLARSHIP . . . The Summer Session is administered under the general regulations governing conduct and scholarship which apply to all sessions of the University. Students are expected to familiarize themselves with dormitory and other rules and to abide by them. A statement of the University rule governing student conduct follows:

"A student is expected to show both within and without the University unfailing respect for order, morality, personal honor, and the rights of others. The authority to administer this rule and to impose penalties for its violation is vested in the University Committee on Student Conduct. The rule is construed as applicable at all times, in all places, to all students of the University."

AUTOMOBILE REGULATIONS . . . Because of local traffic and parking conditions it is necessary to require registration of both motor vehicles and their drivers during the Summer Session as well as during the academic year. Each student who maintains or operates a motor-driven vehicle in or about Ithaca during the Summer Session must do the following: (1) register with the Safety Division Office, Edmund Ezra Day Hall, at the time of Summer Session registration, by paying a fee of \$1 and displaying, as directed, a registration sticker; (2) if under twenty-one years of age, have written consent of his parent or guardian; (3) produce evidence that he may drive in New York State and that the vehicle may be driven there; (4) produce evidence that the vehicle is insured at the standard minima of \$10,000-\$20,000-\$5,000. Motorcycles must be registered but may not be used on the campus during class hours. Trailers as family living units are not allowed on any University property. Campus parking during class hours may be restricted to certain areas.

HEALTH SERVICES

The facilities of the Student Medical Clinic, 5 Central Avenue, are available to all students registered in the six-week Summer Session.

Clinic Hours

Monday through Friday	9 a.m.-4:30 p.m.
Saturday	9-12 a.m.
Sunday	10-11 a.m.

(Physicians are not on duty from 12:00 noon until 2:00 p.m. A nurse will be in attendance during those hours.)

AFTER CLINIC HOURS . . . In the event of serious illness or accident, or if an illness or accident occurs, students may go directly to the

Tompkins County Memorial Hospital, Quarry Street. *This service is not intended for conditions that could have been treated at the Clinic during the regular Clinic hours noted above.*

EMERGENCY SERVICE... A doctor is always available for calls of an emergency nature when an accident has occurred or when the student is too ill to come to the Clinic or the Hospital. (In the women's dormitories these calls should be made by the Head Resident whenever possible.) Telephone calls for this service should be made through the Cornell Operator or the Medical Clinic, Ithaca 4-3211, Ext. 4518, when the Clinic is open, or Ithaca 2747 after Clinic hours. This service is not designed to care for students in their rooms and is restricted to emergencies. A charge of \$2.00 in the daytime and \$3.00 at night is made for these calls.

The Summer Session health fee entitles students to the following services: (1) unlimited visits to the Student Medical Clinic, 5 Central Avenue; (2) hospitalization with medical care for two days at the Tompkins County Memorial Hospital. A per diem charge of \$10.00 is made if hospitalization extends beyond two days; and (3) emergency surgical care. This is defined as initial surgical procedures which are necessary for the immediate welfare and safety of the patient.

If a student elects to consult a private physician, the cost of this service is not covered by the health fee.

LIVING ACCOMMODATIONS

Rooms are available to both graduate and undergraduate men and women in University-operated housing units, as well as off campus. A leaflet giving detailed information on both types of housing, *Residential Halls for Men and Women*, may be secured by writing to the Department of Residential Halls, Edmund Ezra Day Hall, Cornell University, Ithaca, New York.

UNDERGRADUATE WOMEN... All undergraduate women registered in the 1953 Summer Session are required to live in Residential Halls for Women and to take their meals there. Unit V of Clara Dickson Hall will be in use for undergraduate housing, and there will be a uniform charge of \$151.80 for board, room, and an allowance of personal laundry for the six-week period.

GRADUATE WOMEN... Graduate women under twenty-one are required to live in Residential Halls for Women. Graduate women over twenty-one may make application for rooms in Residential Halls or may live in off-campus houses.

Risley Hall will be reserved for graduate women's housing. The rates will range from \$47.40 to \$56.40 for the six-week session, depending upon the desirability and location of the room, and will include room and an allowance of personal laundry only.

Unit VI of Clara Dickson Hall will be available for graduate women who are interested in arranging for board. A uniform rate of \$142.80 for six weeks will include room, twenty-one meals a week, and an allowance of personal laundry.

GRADUATE AND UNDERGRADUATE MEN . . . Single and double rooms in the Baker group of Residential Halls will be available to both groups of men. Such assignments are made in order of date of application. The rates range from \$28.50 to \$45.00 for the six-week session, depending upon the desirability and location of the accommodation, and will include room only.

SOCIAL REGULATIONS FOR WOMEN . . . A Head Resident, appointed by the Office of the Dean of Women, is located in a first-floor apartment of each unit of Clara Dickson Hall and of Risley Hall. Each Head Resident is responsible for the conduct and social life of the hall which she supervises and is glad to advise students in cases of illness and emergency, or to give them whatever information they wish concerning the University and town.

Both the undergraduate and graduate dormitories open at 7:00 a.m. daily. The undergraduate dormitory closes at 11:30 p.m. Sunday through Thursday, and at 12:30 a.m. Friday and Saturday; graduate dormitories close at 12 midnight Sunday through Thursday, and at 1:00 a.m. Friday and Saturday.

SOCIAL REGULATIONS FOR MEN . . . Insofar as practical, all men students are left to the regulation of their own affairs, subject to the University's general rules with regard to student conduct and within the jurisdiction of the Faculty Committee on Student Conduct. There are no prescribed closing hours for men's dormitories.

Student counselors are in residence in all men's housing units to advise students in cases of illness or emergency, or to give them whatever information they wish concerning the University or town.

OPENING-CLOSING DATES OF DORMITORIES . . . All Residential Halls will be open for occupancy Sunday, July 5, at 8:00 a.m.; they will close at 2:00 p.m., Sunday, August 16. *Earlier or later occupancy will not be possible under any circumstances.*

APPLICATIONS FOR ROOMS . . . Applications for rooms in Residential Halls cannot be given consideration unless they are submitted on

official application forms to the office of Residential Halls. Room application forms are distributed *only* by the office of the Summer Session *after* admission has been approved, and each student will automatically receive one with his certificate of admission to the Summer Session.

DEPOSITS WITH APPLICATIONS . . . A \$5.00 room deposit check or money order, drawn to the order of Cornell University, must accompany each application for room in any of the Residential Halls if the application is to receive consideration. This deposit is not applied on the residence charge. If the student occupies an assigned room for even a limited amount of time, the deposit is held until after the end of the Session to cover the return of keys and any damage to building or furniture other than that occasioned by normal use, and to ensure completion of the lease.

REFUNDS OF DEPOSITS AFTER WITHDRAWAL OF ROOM APPLICATIONS . . . The \$5.00 room deposit will be refunded if the applicant files with the Director of Residential Halls written intention to withdraw the application for assignment by June 15, or within two weeks of applications dated June 2 or later. No \$5.00 room deposit will be refunded on cancellations received on or after the day of registration.

OFF-CAMPUS HOUSING . . . The Off-Campus Housing Office in Edmund Ezra Day Hall is maintained by the Department of Residential Halls. This office is a bureau of information only, maintaining files of voluntarily listed accommodations for the use of students who call at the office. Such lists cannot be mailed to prospective students.

Students wishing to sublet houses or apartments off campus are advised to arrive in Ithaca in advance of registration in order to secure such quarters. Rentals of sublet houses and apartments for the Summer Session range from \$50.00 to \$100.00 per month.

There is normally an adequate supply of rooms available in off-campus locations for the Summer Session. These rooms vary considerably in comfort, convenience, and safety. Before leasing a room, careful consideration should be given such details as distance from campus, nearness to eating places, price, ventilation, sanitation, furnishings, and fire escapes. Arrival in Ithaca a few days in advance of registration day will assure students of a better selection of off-campus rooms. It is expected that in 1953 rentals will range from \$5.00 to \$10.00 weekly.

DINING ROOMS AND CAFETERIAS . . . The dining facilities of Willard Straight Hall and the cafeteria in Martha Van Rensselaer Hall are open to both men and women students. Board may be obtained in these places, or in cafeterias, dining rooms, and restaurants near the campus, at approximately \$1.75 to \$2.25 a day.

COST OF LIVING . . . An estimate of the cost of living in Ithaca in the summer can be made by consulting the figures given in the preceding paragraphs. In private houses rentals vary according to the location. Rooms are rented with the understanding that they will be occupied for the entire Session unless both parties agree otherwise.

COUNSELING SERVICES

The office of the Dean of Men and Dean of Women is on the first floor of Edmund Ezra Day Hall. This office maintains the following services:

INDIVIDUAL COUNSELING . . . A trained guidance and counseling staff serves students in personal, educational, vocational, and social areas.

TESTING . . . In cooperation with the University Testing Service, appropriate tests will be administered if, in the counseling process, a desire for them is expressed.

PART-TIME EMPLOYMENT OFFICE . . . This office lists any part-time jobs which are available, and students interested in working should register upon arrival. Income from the type of part-time work available in the summer is nominal.

COUNSELING FOR FOREIGN STUDENTS . . . The Counselor to Foreign Students is concerned for all students from other countries. It is suggested that all foreign students write to him before coming to Ithaca and call upon him soon after arrival.

LIBRARIES

The University libraries comprise the general library of the University, the Mann Library of Agriculture and Home Economics, the Library of the Agricultural Experiment Station at Geneva, the Architecture Library, the Business and Public Administration Library, the Engineering Library, the Library of the School of Industrial and Labor Relations, the Law Library, and the Veterinary Library.

In addition there are the following special departmental libraries and laboratory collections: Agronomy, Animal Husbandry, Animal Nutrition, Barnes Hall, Botany, Browsing, Chemical Engineering, Chemistry, Conservation, Dairy Industry, Entomology, Geology, Goldwin Smith, Hotel, Mathematics, Military, Music, Nature Study, Nutrition, Physics, Plant Breeding, Plant Pathology, Poultry, Regional History, and Zoology.

The usual hours of opening for the libraries during the Summer Session are 7:50 a.m. to 10 p.m. on all weekdays except Saturday, when the li-

baries close at 5 p.m. Certain exceptions, especially in the departmental libraries and laboratory collections, may prevail.

The general collection of reference books and documents, the chief bibliographical publications, and the principal series of academy and learned society publications are located in the University Library. Specialized reference materials will be found in the various college and departmental libraries. The Reference Department of the University Library and the librarians of the college, school, and departmental libraries are prepared to assist students in the effective use of the libraries and in the location of research materials.

The total library resources on the Ithaca campus exceed 1,400,000 volumes. The number of periodicals, transactions, and other serials currently received is over 5,000.

In the course of their development the libraries have received and have built up special collections, some of the most significant being: Architecture, American History, Slavery, Reformation, English and French Revolutions, American Civil War, History of Superstition, Spinoza, Dante, Petrarch, Rhaeto-Romanic, Egyptology and Assyriology, China, Dramatic Literature, Freemasonry, Legal Trials, Entomology, Botany, Zoology, History of Science, Icelandic, and Regional History.

Cards of admission to the stacks and to the White Historical Library are issued to graduate students for the purpose of consultation and research. A limited number of stalls and study spaces are available to graduate students upon application. The privilege of borrowing books for home use is granted to all students who comply with the library regulations.

PROGRAM OF EXTRACURRICULAR ACTIVITIES

The Summer Session, in cooperation with departments and agencies of the University, arranges a balanced extracurricular program of public events and recreation designed to enrich the campus experience of its students, especially those who are not at the University during the winter.

THE WEEKLY CALENDAR AND ANNOUNCEMENTS . . . A weekly calendar, issued and posted on each Saturday of the Summer Session, contains not only all official notices but details of public events and also interesting news about special activities on the campus. Copies may be obtained without charge at the desk in Willard Straight Hall, at the Summer Session office, and at other University offices. Students are advised to secure copies regularly.

LECTURES . . . Public lectures, open to all Summer Session students, are given on selected Wednesday evenings of the Session. Both nonresi-

dent lecturers and members of the Faculty take part in the series, and the subjects are chosen for their general interest and timeliness. In 1952 the lecturers and their topics were:

Dr. Arthur Mizener, Professor of English, Cornell University: "The Liberal Imagination."

Dr. Robert J. Havighurst, Chairman of the Committee on Human Development, University of Chicago: "The Role of the Teacher in Effective Education."

Dr. Richard H. Fogle, Professor of English, Tulane University: "The New Criticism."

Dr. David Butler, Department of Government, University of Oxford, England: "The Twentieth Century Revolution in Britain."

Dr. Arthur W. Ashby, Director of the Agricultural Economics Research Institute, University of Oxford, England: "The Rise of Efficiency in Agriculture."

Dr. P. Sargent Florence, Dean of the School of Commerce and Economics, University of Birmingham, England: "British and American Incentives for Labor and Management."

READING HOURS . . . On Sunday evenings in the Browsing Library at Willard Straight Hall, members of the Faculty present informal talks on topics of current or special interest, with discussion following.

SAGE CHAPEL . . . Religious services are conducted in Sage Chapel throughout the academic year by clergymen of various religious denominations. There will be services in the Chapel on five Sundays during the Summer Session, July 12 to August 9, inclusive.

CONCERTS . . . A series of Thursday evening concerts is given in the Memorial Room of Willard Straight Hall, open without charge to students in the Summer Session.

RECORDED MUSIC . . . Each Wednesday evening a concert of recorded music is broadcast on the Library Slope. In inclement weather, the concert is presented in the Music and Art Room of Willard Straight Hall. Each Saturday evening a program of recorded music is broadcast in the Music and Art Room.

RECREATIONAL FOLK AND SQUARE DANCING . . . For students and Faculty members on Monday evenings. An instructor is present.

SUMMER THEATRE . . . Performances are given by the Summer Players on Friday and Saturday evenings; admission is charged. In 1952 the series included: "The Family Reunion," by T. S. Eliot; "Yes, M'Lord," by William Douglas Home; "Village Wooing," by George

Bernard Shaw, and "Hello, Out There," by William Saroyan; and "Is Life Worth Living?" by Lennox Robinson. In 1953 the production program—because of improvements under way in the theatre plant in Willard Straight Hall—will be somewhat restricted in scope.

The Summer Session productions of the University Theatre are under the general direction of Professors McCalmon, Stainton, and Albright, assisted by other members of the direction staff. Regularly enrolled members of the classes in Speech and Drama may compete for places in the casts and production staffs; detailed announcements will be made in the various classes.

FILMS . . . Noteworthy European and American films are presented by the University Theatre during the Summer Session; admission is charged. The film program will be modified during the summer of 1953 to allow for physical improvements in the theatre plant in Willard Straight Hall.

WILLARD STRAIGHT HALL . . . The student union of Cornell University contains an air-conditioned cafeteria for the service of regular meals and a snack bar for late afternoon and evening service, lounges for men and women, rooms for student meetings, for games, and for dancing, the University Theatre, a billiards and games room, a barber shop for men, a browsing library well stocked with books of general interest, and a music and art room. On the upper floors of the Hall are sleeping rooms used principally by parents and guests of students, by alumni, and by guests of the University.

The Board of Managers of Willard Straight Hall not only cooperates in some of the events listed above but also arranges for dances, open houses, games, art exhibits, and other recreation and entertainment.

Willard Straight Hall is for the use of members of the University community; but guests of members may secure guest cards for limited periods upon application to the Director of the Hall.

SPORTS . . . Tennis courts, conveniently located about the campus, are available for the use of Summer Session students, and an 18-hole golf course is operated by the University. A gorge at one end of Beebe Lake on the campus forms a natural swimming pool, where two guards are on duty every day of the Session from 1 to 6 p.m.

Private lessons in tennis, golf, and swimming are offered by members of the Department of Physical Education.

Tennis. Hours to be arranged upon registration at Barton Hall on July 6. Eight lessons and two lectures. Fee, \$15.

Golf. Hours to be arranged. Call Mr. Hall at the University Golf Course, Ext. 4411.

Swimming. Hours to be arranged. See Mr. Filley at Beebe Lake or call Ithaca 4-3188.

For more detailed information, address Mr. R. J. Kane, Director of Athletics, Schoellkopf Building.

An extracurricular course in equitation is also offered. Address inquiries about fees and hours to the Director of the Equitation Course, Summer Session, BARTON HALL.

The Curriculum

COURSES OF INSTRUCTION . . . The listing is alphabetically by departmental subheadings under general fields of instruction. For offerings in particular subjects, consult the Index. Because of demands that may be placed upon the instructing staff, it may be necessary to substitute instructors for the ones named in the course descriptions. The Director reserves the right to cancel any course for which, through unforeseen circumstances, satisfactory instruction or facilities cannot be provided.

UNIT COURSES . . . Unit courses, less than six weeks in length, are indicated by a *u* following the course number, and their dates are given in the descriptions.

COURSES WITH FEES ATTACHED . . . Courses requiring laboratory or other fees are marked by asterisks.

CLASS SCHEDULES . . . In most courses of instruction, classes will meet five times a week, on each weekday except Saturday. Class periods begin on the hour, unless otherwise indicated, and are fifty minutes in length. Laboratory periods are of various lengths, as indicated in the descriptions of courses which include laboratory work.

ROOM SCHEDULES . . . The meeting places of courses are given in the course descriptions. Any changes in room assignments will be found in a supplementary announcement which will be distributed to students on registration day.

SCHEDULE OF EXAMINATIONS . . . With a few exceptions, examinations will be held on Friday, August 14, and Saturday, August 15, at the hours indicated by the schedule below; in the exceptional cases, the examination will be held on Thursday, August 13, at 2. The usual classrooms will be used unless a change is announced by the instructor.

In courses which meet for more than one hour daily, the examination period is determined by the first hour at which they meet. For example, Economics 101 meets daily at 10 and at 11; the examination will be held on Friday at 10:30. In courses which include both lecture and laboratory periods, the examination period is determined by the lecture hour. In courses in which no examination is to be given, an announcement to that effect will be made by the instructor; in such cases the last meeting of each course will be held in the examination period for that course.

Examinations will be held as follows:

- 8 o'clock classes, Friday at 8.
- 9 o'clock classes, Saturday at 8.
- 10 o'clock classes, Friday at 10:30.
- 11 o'clock classes, Saturday at 10:30.
- 12 o'clock classes, Friday at 2.
- Afternoon classes, Saturday at 2.

AGRICULTURE

AGRICULTURAL ECONOMICS

Ag.Ec. 151. *PUBLIC PROBLEMS IN AGRICULTURE*. (U,G) 3 hours credit. Lectures, M T W Th F 11-12:30. Warren 201. Assistant Professor ROBINSON.

A review of the economic characteristics of agriculture as an industry and the problems associated with agriculture which are likely to call for collective action. Federal farm programs suggested or enacted during recent decades are analyzed. Among the topics discussed are farm price supports, land tenure and credit arrangements, and soil conservation programs.

*Ag.Ec. 202. *FARM MANAGEMENT*. (U,G) 3 hours credit. Lectures, M T W Th F 10. Laboratory to be arranged. Warren 201. Instructor to be announced.

A course for those who farm or work with farmers and have had farm management training. A review of the basic principles and the new developments in farm management. Visits will be made to farms. Approximate cost for transportation, \$10.00. Fee for materials, \$2.00.

AGRONOMY

*Agron. 105. *SOIL AND CROP MANAGEMENT*. (U,G) 3 hours credit. Prerequisite, Agronomy I and II or equivalent. (Consent of instructor.) Lectures, M T W Th F 9. Laboratory, W 1:30-4:00. Caldwell 143. Assistant Professor GARMAN.

Basic principles of soil management and field crop production and their application to the solution of practical farm problems. Rotations, maintenance of soil productivity, and conservation of crops will be stressed. Field trips will be scheduled. Designed to meet the needs of county agricultural agents, vocational agricultural teachers, and others with similar interests. Laboratory fee, \$3. Cost of transportation on field trips will be assessed, probably about \$5.

ANIMAL HUSBANDRY

*An.Hus. 111. *LABORATORY WORK IN ANIMAL NUTRITION*. (U,G) 3 hours credit. Prerequisite, a course in quantitative analysis. Registration by permission. M T W Th F 1-5. Stocking Hall 160. Assistant Professor WARNER.

This course is designed to familiarize the student with the principles of animal experimentation as well as the application of chemical methods to the solution of fundamental problems of nutrition. Laboratory fee, \$15.

BIOLOGICAL SCIENCES

BACTERIOLOGY

*Bact. 1. *GENERAL BACTERIOLOGY*. (U,G) 2 or 4 hours credit. Lectures, M T W Th F 1:40, Stocking 218; laboratory, M T W Th F 2:30-4:30, Stocking 301. Assistant Professor VANDEMARK and instructor.

An introductory course giving a general survey of the field of bacteriology, together with the fundamentals essential to further work in the subject. Laboratory fee, \$10, for those seeking four credit hours.

BIOCHEMISTRY

Bioch. 101. *GENERAL BIOCHEMISTRY*. (U,G) 4 hours credit. Prerequisite, organic chemistry. Lectures, M T W Th F 8-10. Savage 145. Professor WILLIAMS.

Discussion of the chemistry of plant and animal substances and the reactions occurring in biological systems.

*Bioch. 102. *GENERAL BIOCHEMISTRY*. (U,G) 2 hours credit. Prerequisite, quantitative analysis, and parallel, Course 101. Laboratory, M T W Th F 10-12:30. Savage 230. Professor WILLIAMS and assistant.

Laboratory practice with plant and animal materials and the experimental study of their properties. Laboratory fee, \$15.

BOTANY

*Bot. 17. *SHRUBS OF THE NORTHERN APPALACHIAN REGION*. (U,G) 2 hours credit. Prerequisite, a course in general botany. This course may be taken along with Botany 117, or independently. Laboratory, T Th 2-5; field trips, F 2-6. Plant Science 211. Professor CLAUSEN and instructor.

A study of the native and common introduced shrubs of the northern Appalachian Region, with emphasis on distinguishing characteristics and recognition in the field. The trips afford opportunity to observe living examples of almost all of the species. Laboratory fee, \$3.

*Bot. 31. *PLANT PHYSIOLOGY*. (U,G) 4 hours credit. Prerequisite, general botany or biology and elementary chemistry. Lectures, M T W Th F 9; laboratory, M T W Th F 10-12. Plant Science 141. Professor CLARK.

This course is designed to acquaint the student with the important life processes of plants. Topics such as water relations, photosynthesis, translocation, digestion, respiration, mineral nutrition, and growth relations are studied in some detail, and particular emphasis is placed, both in laboratory and in classrooms, on discussion of the principles and their applications to living plants. Laboratory fee, \$5.

*Bot. 117. *TAXONOMY OF VASCULAR PLANTS*. (U,G) 4 hours credit. Prerequisite, a course in general botany. Students taking this course are advised to take Botany 117 only, or to combine this course with Botany 17. Additional laboratory hours will be arranged for students taking both courses. Lectures, M T W Th F 10, Plant Science 141; laboratory, T Th 2-5, Plant Science 211; field trips, M W 2-6. Professor CLAUSEN and instructor.

A survey of the kinds of seed plants and ferns, their classification, gross morphology, geographical distribution, and economic importance, together with an introduction to the literature and principles of taxonomy. Laboratory fee, \$6.

*Bot. 124. *CYTOLOGY*. (U,G) 4 hours credit. Prerequisite, General Botany or Zoology 102 or 104 or the equivalent. Lectures, M T W Th F 2-3, Plant Sci-

ence 143; laboratory, M T W Th F 3-5, Plant Science 219. Associate Professor UHL.

The principal topics considered are protoplasm, cells and their components, nuclear and cell division, meiosis and fertilization, and the relation of these to the problems of development, reproduction, taxonomy, and heredity. Both plant and animal materials are used. Microtechnique is not included. Laboratory fee, \$3.50.

CONSERVATION

Cons. 7. *INTRODUCTION TO THE BIRD LIFE OF AMERICA.* (U) 2 hours credit. Lectures, M 7:30 p.m., T Th 4:30 p.m.; field trips, S 2 p.m. or W 5:30 a.m., and one trip by appointment. Fernow 122. Professor A. A. ALLEN and Dr. E. G. ALLEN.

A course designed for those interested in increasing their knowledge of birds but not planning advanced work in ornithology. Students majoring in biological sciences or conservation should register for Course 9.

By the use of color films, slides, phonograph records, and specimens, students will get acquainted with the local bird life and the more common birds of other parts of the United States and Canada. Field trips will be conducted to the best local areas for observing birds.

*Cons. 8. *ELEMENTARY TAXONOMY AND NATURAL HISTORY OF THE VERTEBRATES.* (U,G) 4 hours credit. Prerequisite, general zoology or biology. Lectures, M T W Th 1:40-2:30; laboratory and field work, M T W Th 2:30-5:30. Fernow 14. Professor RANEY.

Lectures on fish, amphibians, reptiles, and mammals; their habits, life histories, coloration, behavior, reproduction, and adaptations, together with their classification, nomenclature, characters, and relationships. Laboratory study of the parts employed in the classification of these groups with special training on the identification of the vertebrates of eastern United States. Field work is partly to give practice in field observations and in ready identification of local vertebrates in their natural environment and to introduce ecological methods. Fee, \$4.50.

*Cons. 9. *GENERAL ORNITHOLOGY.* (U,G) 3 hours credit. Lectures, M W F 9; laboratory, M W 1:40-4:30 or M W F 10-12; field trips, T Th 5:30-8:00 a.m. Fernow 210. Professor A. A. ALLEN and Dr. E. G. ALLEN.

An introduction to the study of birds and particularly the local species; their songs and habits. The lectures cover classification, migration, coloration, song, nest building, eggs, care of young, methods of attracting birds, and their economic importance. The laboratory work with bird skins, nests, and eggs gives an intimate knowledge of the birds of eastern North America, their life histories and distribution, and familiarity with the use of manuals. The aim of the field work is the identification of birds by their songs and habits as well as by their plumage. Fee, \$3.

*Cons. 22. *ICHTHYOLOGY.* (U,G) 2 hours credit. Prerequisite, Course 8 or permission of instructor. Lectures, F 9 and 1:40-2:30; laboratory, F 10-12 and 2:30-5:30. Professor RANEY.

Evolution, relationships, structure, habits, ecology, and literature of fishes. Laboratory studies on structure and identification of North American fishes. Field studies on ecology and life histories include one all-day field trip. Fee, \$4.50.

*Cons. 126. *ADVANCED ORNITHOLOGY.* (U,G) 3 hours credit. Prerequisite, Course 9 or its equivalent; with special permission may be taken with Course 9. Lectures, T Th 9; laboratory, T Th 1:40-4:30, and one other period by ap-

pointment. Fernow 212. Professor A. A. ALLEN. Students desiring this course should write Professor ALLEN for reservations.

The structure and classification of the birds of the world; geographical distribution; the preparation of bird skins and bird photography. Fee, \$3.00.

Cons. 128. *HISTORY AND LITERATURE OF ORNITHOLOGY*. (U,G) 1 hour credit. Lectures, T Th 10. Fernow 210. Dr. E. G. ALLEN.

An introduction to the evolution of ornithology in zoological science; the leading writers and bird artists from Aristotle to the present, together with the main sources and aids for the preparation of bibliographies.

Cons. 401-404. *RESEARCH PROBLEMS*. (U,G) Credit and hours to be arranged. Prerequisite, adequate preparation and permission of instructor.

401. *HERPETOLOGY*. Professor RANEY.

402. *ICHTHYOLOGY*. Professor RANEY.

404. *ORNITHOLOGY*. Professor ALLEN.

ENTOMOLOGY

*Entom. 12. *GENERAL ENTOMOLOGY*. (U,G) 3 hours credit. Lectures, M T W Th F 11; laboratory, M W 2-5. Comstock 100. Professor WATKINS.

An introduction to the study of insects. Emphasis is placed on the position of insects in the living world, their biology, habits, structure, and classification. Field work is designed to acquaint the student with insects in their natural habitats; laboratory exercises provide an opportunity for a study of structure, classification, and relationship with other classes of arthropods. Students will be assisted in making reference collections and in the preservation of materials to aid teachers who wish to use insects in nature study classes. Laboratory fee, \$4.50.

*Entom. 303. *SPECIAL PROBLEMS IN ENTOMOLOGY*. (U,G) Credit and hours to be arranged. Professor WATKINS.

This course may be elected by qualified persons with the permission of the instructor under whom the work is done. Laboratory fee: variable according to the nature of the problem.

FLORICULTURE AND ORNAMENTAL HORTICULTURE

Courses in this department are offered for three groups of people. Courses 3, 12, and 13 are of interest to amateurs. Course 33 is offered for practicing nurserymen, park and estate superintendents, landscape engineers, and architects. Courses 12, 13, and 33 are given for advanced students in horticulture and landscape gardening.

*Flor. 3. *INTRODUCTORY LANDSCAPE GARDENING*. (U,G) 2 hours credit. Lectures, T Th 11; laboratory, F S 9-12. Plant Science 37. Associate Professors CORNMAN and PORTER and Assistant Professor LEE.

An introduction to the woody and herbaceous ornamental plants, their use and culture. A course intended for teachers, home owners, and those who for professional or personal reasons desire an understanding of the principles of landscape gardening and ornamental plants as well as specific information in this field. Not open to majors in the Department of Floriculture and Ornamental Horticulture. Laboratory fee, \$2.50.

*Flor. 12. *HERBACEOUS PLANT MATERIALS*. (U,G) 3 hours credit. Lectures, M T W Th 8, Plant Science 37; laboratory, M W 2-5, Plant Science 15. Assistant Professor LEE.

A study of the ornamental herbaceous plants used in landscape and garden plantings. Emphasis is placed on the identification, uses, and culture of annuals and summer flowering perennials. Laboratory fee, \$2.00.

*Flor. 13. *WOODY PLANT MATERIALS FOR LANDSCAPE PLANTING*. (U,G) 4 hours credit. Lectures, M T W Th 9, Plant Science 37; laboratory and field work, M T W Th 10-12, Plant Science 29. Associate Professor CORNMAN.

A study of the characteristics and requirements of trees, shrubs, and vines for landscape planting. The laboratories and field trips enable the student to recognize common woody ornamental plants. Laboratory fee, \$3.00.

*Flor. 33. *PLANTING DESIGN*. (U,G) 3 hours credit. Lectures, T W Th F 1; laboratory, T Th F 2-5, Plant Science 433. Associate Professor PORTER.

Knowledge of common plant materials is prerequisite. Some experience in drawing plans and sketches will be of value. The course covers the theory and principles of design as they relate to all types of planting problems together with the practical considerations that affect the selection and use of plants. Laboratory fee, \$5.

GENETICS

*Genet. 101. *GENERAL GENETICS*. (U,G) 4 hours credit. Prerequisite, a course in botany, zoology, or biology. Lectures, M T W Th F 10, Plant Science 143; laboratory, M T W Th F 11-12:30, Plant Science 146. Professor SRB.

A study of the fundamental principles of genetics in a wide variety of living forms, including plentiful examples from human heredity. Discussions of inheritance patterns, gene action and interaction, the genetic basis of sexuality, quantitative inheritance, inbreeding, hybrid vigor, mutation, and evolution. The relation of genetic knowledge to human welfare is considered. Laboratory experiments illustrate the elementary principles under consideration. Text: Srb and Owen's *General Genetics*.

The course should provide adequate background for teaching genetics at a high school level and serves as a prerequisite to more specialized courses in genetics. Laboratory fee, \$3.

ZOOLOGY

*Zool. 211-212. *COMPARATIVE ANATOMY OF THE VERTEBRATES*. (U,G) 6 hours credit. Prerequisite, introductory zoology or biology. M T W Th F 8-1. Stimson G-25 and 310. This course is the equivalent of Zoology 211-212. Professor GILBERT and assistant.

A thorough study and dissection of representative vertebrate types, including a fish, amphibian, reptile, bird, and mammal, together with demonstrations on species other than the types dissected.

The course is intended to give students an evolutionary background for the study and appreciation of the structure of higher vertebrates, including man. Laboratory fee, \$20.

*Zool. 404. *GENERAL ANIMAL ECOLOGY*. (U,G) 4 hours credit. Prerequisite, introductory college zoology or biology. Lectures, M T W Th F 12, Stimson G-1; laboratory, M W F 2-6, Stimson 215. Associate Professor COLE.

A course designed to introduce the student to interrelationships between animals and the environments in which they live. Descriptions of the ways in which animals are affected by particular environmental conditions including climatic factors,

population density, and the presence of other species of plants and animals. Field and laboratory study of local animals and habitats with special reference to the factors limiting animals to particular types of habitats. Fee, \$10.

EDUCATION

ADMINISTRATION AND SUPERVISION

Educ. 219. *SEMINAR IN PERSONNEL ADMINISTRATION IN EDUCATIONAL INSTITUTIONS*. (G) 2 hours credit. M T W Th F 9. Warren 101. Professor WINSOR.

A study of the problems of human relations in educational institutions. The methods and principles of recruitment, selection, placement, maintenance, organization, and government of staff and employees are analyzed.

Educ. 243. *PROCEDURES AND TECHNIQUES IN SUPERVISION*. (G) 2 hours credit. M T W Th F 9. Warren 245. Professor MOORE.

Designed for superintendents, supervisors, and principals; inexperienced students admitted only by permission. A consideration of the nature and purpose of supervision; the improvement of the learning-teaching process; skill in observations; analysis of methods; relationships between general and specific objectives; selection, analysis, and organization of subject matter; measuring and testing results; assisting teachers in professional growth.

Educ. 261. *FUNDAMENTALS OF EDUCATIONAL ADMINISTRATION*. (G) 2 hours credit. M T W Th F 8. Caldwell 143. Associate Professor ELLIOTT.

An introduction to the study of administration with special application to the educational program. Both the science and the art of administration are examined.

Educ. 262. *THE SECONDARY SCHOOL PRINCIPALSHIP*. (G) 2 hours credit. M T W Th F 12. Comstock 145. Instructor to be announced.

This course deals with the responsibility of the principal in his role as administrator of a school. Special attention is given to the problems of the six-year high school.

Educ. 263. *THE ELEMENTARY SCHOOL PRINCIPALSHIP*. (G) 2 hours credit. M T W Th F 8. Comstock 145. Professor KULP.

Intended primarily for persons interested in the elementary principal's certificate. A consideration of the purposes and problems of administrative organization and leadership in the elementary school.

Educ. 268. *SEMINAR IN EDUCATIONAL ADMINISTRATION*. (G) 2 hours credit. M T Th 1:30-3. East Roberts 223. Associate Professor ELLIOTT.

An advanced study of the administrator's role as educational leader in school, community, and the profession at large. Members of the seminar will be permitted to attend the administrators' conference which is scheduled for the fifth week of the summer session.

ADULT EDUCATION

The School of Education has extended its program to meet the increased demands for qualified leaders in adult education. Three courses in adult education are available to teachers, directors of adult education, and leaders in other agencies concerned with adult education.

Educ. 293. *ADMINISTRATION AND SUPERVISION OF ADULT EDUCATION*. (G) 2 hours credit. For administrators, supervisors, social workers, teachers, and others interested in adult leadership. M T W Th F 9. Van Rensselaer 124. Professor HOSKINS.

The course will be developed to meet the needs of those responsible for the direction of comprehensive programs of adult education in the secondary schools. The selection or training of special teachers for the development of unit courses will be emphasized. The services of several directors of programs will be utilized.

Educ. 298u. *RURAL EDUCATIONAL LEADERSHIP*. (U,G) 1½ hours credit. M T W Th F 9. Laboratory to be arranged. Offered during the second three-week session, beginning July 27. Comstock 145. Professor LEAGANS.

For public school teachers, school principals, social workers, agriculture and home economics workers, directors of adult education, and others who expect to work and live in rural areas. Designed to help students identify and understand (1) the major educational, social, and economic problems common in rural areas; (2) the nature and functions of the major educational agencies and service organizations commonly serving rural areas; and (3) the ways in which these institutions may strengthen their individual services through coordination of their facilities to meet common responsibilities in the development of rural society.

Educ. 432. *METHODS AND MATERIALS IN ADULT EDUCATION*. (G) 2 hours credit. M T W Th F 11. Van Rensselaer 121. Associate Professor PATTERSON.

This course is planned for teachers, directors of adult education, extension agents, and leaders in other agencies concerned with adult education. Emphasis will be placed on appropriate methods and teaching aids in adult education, such as effective use of an advisory committee; handling large groups, program service, forums, workshops, discussions; publicizing and interpreting the program; teaching through mass media; organizing neighborhood groups; nongroup methods, including conferences and home visits; the importance of suitable audio-visual aids. Special attention will be given to the use of local community resource materials for enriching the program.

AGRICULTURAL EDUCATION

Courses in agricultural education will be offered in two three-week units to provide teachers of vocational agriculture with an opportunity to obtain graduate work without taking extended leaves of absence from their positions.

The courses offered will use the workshop approach. Field studies of specific situations will be made during the laboratory periods.

The Summer Session offerings will be supplemented by off-campus extramural graduate courses during the summer to permit further study while the teacher is on the job.

Students who find it possible to register for the six-week Summer Session will be able to enroll in both three-week courses, since each course will be repeated.

Registration for the first three-week section will be on July 6, and for the second three-week section on July 27.

Educ 233u. *SUPERVISED FARMING PROGRAMS IN VOCATIONAL AGRICULTURE*. (G) 1½ hours credit. M T W Th 10 and W 1-5. Warren 101. Associate Professor SMITH.

The basic concepts in planning and using supervised farming programs adapted to the use of the new teaching aids developed for New York conditions. Field applications will be made in near-by departments of vocational agriculture.

Educ. 236u. *THE ORGANIZATION AND ADMINISTRATION OF VOCATIONAL AGRICULTURE IN SECONDARY SCHOOLS*. (G) 1½ hours credit. M T W Th 11 and M 1-5. Warren 101. Professor HOSKINS.

Problems in the administration of successful programs of vocational education in agriculture will be considered from the local to the federal level. State plans and legislative acts are treated as a part of the course.

RURAL EDUCATIONAL LEADERSHIP. (See *Adult Education*, p 29.)

EDUCATIONAL PSYCHOLOGY AND MEASUREMENT

Educ. 111. *EDUCATIONAL PSYCHOLOGY*. (U) 2 hours credit. M T W Th F 9. East Roberts 223. Assistant Professor ANDRUS.

Designed for prospective teachers. Consideration of essential facts and principles of psychology and their practical application to problems in education.

Educ. 211. *EDUCATIONAL PSYCHOLOGY*. (G) 2 hours credit. M T W Th F 11. Savage 145. Professor GLOCK.

For experienced teachers, supervisors, guidance workers, and administrators. The course is designed to help students with problems in the field of educational psychology. Individual students may center their interests in such fields as reading, arithmetic, spelling, discipline, personality, and adjustment.

Educ. 215. *PSYCHOLOGY OF ADOLESCENCE*. (U,G) 2 hours credit. M T W Th F 10. Comstock 145. Assistant Professor ANDRUS.

A study of behavior during adolescence; tasks involved in developing maturity; effect of preceding stages of development on maturity and adolescence.

Educ. 251. *EDUCATIONAL MEASUREMENT*. (G) 2 hours credit. Prerequisite, a course in educational psychology or permission of instructor. M T W Th F 10. Warren 245. Assistant Professor AHMANN.

A study of the construction and administration of achievement tests and the use of aptitude tests, achievement tests, and other measuring instruments in the classification and guidance of pupils and improvement of instruction.

Educ. 253. *INTRODUCTION TO EDUCATIONAL STATISTICS*. (G) 2 hours credit. M T W Th F 8. Warren 201. Assistant Professor AHMANN.

A study of common statistical procedures encountered in educational literature and research. The course includes the computation and interpretation of descriptive measures and tests of significance.

Educ. 315. *READING IN THE SECONDARY SCHOOL*. (G) 2 hours credit. M T W Th F 9. Plant Science 143. Professor GLOCK.

A course which proposes to aid secondary school teachers in locating reading problems, in determining causes of reading difficulty, and in organizing developmental and remedial programs. Will not be offered in 1954.

PSYCHOLOGICAL TESTS. (See *Psychology*, page 59.)

PSYCHOLOGY OF EXCEPTIONAL CHILDREN. (See *Psychology*, page 60).

PSYCHOLOGY OF LEARNING. (See *Psychology*, page 59.)

ELEMENTARY EDUCATION

Educ. 221. *SOCIAL STUDIES IN THE MIDDLE GRADES*. (Grades 4,

5, and 6) (G;U by permission) 2 hours credit. M T W Th F 9. Goldwin Smith 236. Miss KLEE.

This course will be planned to meet the specific needs of teachers of the fourth, fifth, and sixth grades. Suggestions for making social studies learning experiences meaningful and purposeful to children will be made. Opportunities will be given for members of the class to develop resource units for their own teaching situations.

Educ. 225. *DEMONSTRATION SCHOOL*. 1 hour credit. M T W Th F 9-11:30. Conferences for observers, T Th 2-3:30. Comstock 245. Professor MOORE, Miss KNAPP, and others.

A demonstration school exemplifying modern informal methods in elementary schools will be maintained on the campus for observational purposes. Special opportunities for observation will be scheduled for classes in supervision and methods.

Educ. 247. *SEMINAR IN ELEMENTARY EDUCATION*. (G) 2 hours credit. M W F 1:30-3:00. Warren 245. Mrs. SMITH.

Designed for inexperienced teachers in the elementary school. A consideration of the use of libraries, audio-visual aids, and other teaching materials; the keeping of records and preparing of reports; relationships with principals and supervisors; and pupil personnel problems of the elementary school.

Educ. 313. *METHODS OF TEACHING READING*. (G) 2 hours credit. M T W Th F 12. Savage 145. Instructor to be announced.

Designed for teachers, supervisors, and administrators in the elementary school. The basis for the improvement of reading instruction. Appraisal of teaching practices and instructional materials; group testing programs and individual diagnostic procedures; remedial and corrective reading techniques.

Educ. 314. *ARITHMETIC IN THE ELEMENTARY SCHOOL*. (G) 2 hours credit. M T W Th F 10. Savage 100. Instructor to be announced.

A course concerned with recent developments in the field of arithmetic, beginning with a survey of the history of numbers and proceeding to an evaluation of newer trends in the methods now being used. Each student may concentrate on the problems in the area in which he is most interested.

CHILD DEVELOPMENT (See *Home Economics*, page 45.)

CHILDREN'S LITERATURE. (See *Home Economics*, page 45.)

THE TEACHING OF NATURE STUDY AND ELEMENTARY SCHOOL SCIENCE. (See *Nature Study and Science Education*, p. 34.)

FIELD NATURAL HISTORY (See *Nature Study and Science Education*, p. 34.)

NATURE LITERATURE. (See *Nature Study and Science Education*, p. 34.)

GUIDANCE AND PERSONNEL ADMINISTRATION

Educ. 282. *EDUCATIONAL AND VOCATIONAL GUIDANCE*. (G) 2 hours credit. M T W Th F 9. East Roberts 222. Associate Professor NELSON.

Principles and practices of educational and vocational guidance. Historical and theoretical background of the guidance movement; educational, vocational, and community information needed; the study of the individual; group methods; counseling; placement and follow-up; the organization, administration, and appraisal of guidance programs.

Educ. 284. *GROUP TECHNIQUES IN GUIDANCE*. (G) 2 hours credit. M T W Th F 10. Caldwell 143. Associate Professor NELSON.

Methods and materials for presenting occupational and orientation information to students. Deals with classes in occupations, orientation groups, field trips, clubs, work-experience programs, and other media.

Educ. 286. *ORGANIZATION AND ADMINISTRATION OF GUIDANCE PROGRAMS*. (G) 2 hours credit. M T W Th F 11. Plant Science 143. Dr. BOYLAN.

Principles and practices in planning and conducting a guidance program and other pupil personnel services. This is one of the new courses required for permanent certification in guidance in New York State.

Educ. 288. *CASE STUDIES IN COUNSELING*. (G) 2 hours credit. M T W Th F 8. Prerequisites, 255, 282, and 283, or their equivalents. Plant Science 143. Dr. BOYLAN.

An advanced course in the principles and techniques of counseling, in which actual cases are used for demonstration purposes. Preparation for and conduct of counseling interviews; the making of case studies; referral and other procedures.

HOME ECONOMICS EDUCATION

*Educ. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. (G) Credit and hours to be arranged. Professor HUTCHINS and Associate Professor PATTERSON.

For graduate students recommended by their chairmen and approved by the head of the department and the instructor in charge for independent, advanced work. Fee will be dependent on the nature of the problem.

*Educ. 407. *THESIS AND RESEARCH*. (G) Credit to be arranged. Registration with permission of the instructor. Professor HUTCHINS and Associate Professor PATTERSON.

Fee will be dependent on the nature of the problem.

*Educ. 433. *TEACHING HOME ECONOMICS AT THE SECONDARY SCHOOL LEVEL*. (G) 2 hours credit. M T W Th F 10. Van Rensselaer 121. Professor HUTCHINS.

Designed for students who have had experience in teaching home economics in secondary schools. Consideration will be given to program planning, teaching procedures, materials, and other pertinent problems students find important for homemaking teachers at the secondary school level. Opportunity will be provided for work on individual problems. Fee, \$3.

*Educ. 455. *GENERAL EDUCATION AND HOME ECONOMICS*. (G) 2 hours credit. M T W Th F 9. Van Rensselaer 124. Associate Professor PATTERSON.

In this course consideration will be given to the interpretation of general education, its purposes and their implications for teaching home economics. The concerns in this course will be such topics as meeting developmental tasks, teacher-student planning and other democratic procedures, the significance of cultural backgrounds in program planning, using scientific method in critical thinking, and education for family living. Qualified consultants will meet with the students in this class each week to help clarify the issues. This course is planned for educators interested in a better understanding of general education and the place of home economics in it. Fee, \$3.

INDUSTRIAL EDUCATION

Educ. 333. *DEVELOPMENT OF WRITTEN INSTRUCTIONAL MATERIALS*. (U,G) 2 hours credit. M T W Th F 8. I. & L.R. Bldg. 23. Mr. RANNEY.

Study of the various types of written instructional materials used in educational programs, with emphasis on the procedures and techniques used in their preparation. The course content is applicable to the development of training manuals in industry, instruction manuals for vocational schools, textbooks, and other types of written instructional materials.

Educ. 334. *CONFERENCE LEADERSHIP*. (U,G) 2 hours credit. M T W Th F 1:30-3:30. I. & L.R. Bldg. 17. Professor EMERSON.

Theory and practice of conference leadership and its application to industrial training situations. Deals with comparison of conference and other instructional methods, qualifications of conference leaders, procedures and techniques of conference leadership, different types of conferences, and development of skill in conducting conferences. Students will be expected to lead group discussions on current topics and problems.

Educ. 335. *WORKSHOP—DEVELOPMENT OF INSTRUCTIONAL MATERIALS*. (U,G) 2 or 4 hours credit. Hours to be arranged. M T W Th F 8-4. I. & L.R. Bldg. 50. Mr. RANNEY.

A workshop designed to provide opportunity, through consultant service and laboratory facilities, for students to prepare and revise instructional materials for courses in industrial arts, vocational industrial, or vocational technical education. Students will be expected to have done preliminary work on their instructional materials and to bring with them such data as will be useful. Permission of the instructor is required. Some typing service will be available to workshop members.

Educ. 364. *TRAINING IN INDUSTRY*. (U,G) 2 hours credit. M T W Th F 9. I. & L.R. Bldg. 23. Associate Professor BROPHY.

A study of purposes underlying the establishment of plant training programs; patterns of organization, administration, and operation; out-of-plant supplementary educational facilities; sources and qualifications of plant training personnel; and types of programs such as orientation, on-the-job training, apprenticeship, supervisor and executive training, and out-of-hours courses.

Educ. 496. *THE SECONDARY SCHOOL IN OUR INDUSTRIAL SOCIETY*. (U,G) 2 hours credit. M T W Th F 11. I. & L.R. Bldg. 17. Assistant Professor BARTON.

This course is designed for secondary school teachers and administrators who are concerned with understanding and teaching the political, economic, and social developments of our industrial society. Reading lists and individual assignments will provide students with content and subject matter to meet their needs. Class discussions will center around techniques, methods, specific problems and cases involved in supervision and teaching in these areas.

Educ. 632. *SUPERVISION OF INDUSTRIAL EDUCATION*. (U,G) 2 hours credit. M T W Th F 11. I. & L.R. Bldg. 23. Associate Professor BROPHY.

Study of administrative practices in industrial and technical schools. Relationships of the administrator with other school officers; advisory committees and their

functioning; public relations; problems of plant and equipment; budgetary procedures; staff personnel relations; teacher selection and induction; student personnel procedures; evening school organization and administration.

Educ. 633. *THEORY AND STRUCTURE OF INDUSTRIAL TECHNICAL EDUCATION*. (U,G) 2 hours credit. M T W Th F 10. I. & L.R. Bldg. 23. Professor EMERSON.

Study of the reasons underlying the development of industrial and technical education in its present structure, and the directions in which it appears to be moving.

NATURE STUDY AND SCIENCE EDUCATION

Educ. 107. *THE TEACHING OF NATURE STUDY AND ELEMENTARY SCHOOL SCIENCE*. (U,G) 2 hours credit. Lectures, M W F 11; laboratory or field work, T Th 2-4:30. Fernow 8. Instructor to be announced.

The content and method of nature study and elementary school science with emphasis on the teaching of physical science. (Given in a three-year cycle, emphasizing the biological, the physical, and the earth science aspects of the subject.)

Educ. 108. *FIELD NATURAL HISTORY*. (U,G) 2 hours credit. Lectures, M W 2-2:50; field trips, M W 2:50-5:20, F 2-4:30. Fernow 8. Associate Professor GORDON.

Field trips and lectures devoted to a study of the natural history of various ecological units, with special emphasis on their contribution to the teaching of science at elementary and secondary levels.

Educ. 202. *NATURE LITERATURE*. (U,G) 2 hours credit. Lectures, M T W Th F 10. Fernow 8. Associate Professor GORDON.

A survey of nature and science prose and poetry with attention to their significance at elementary and secondary levels and for leisure occupation.

Educ. 205. *THE TEACHING OF CONSERVATION*. (U,G) 2 hours credit. M T W Th F 12, plus four Saturday mornings or the equivalent. Fernow 8. Assistant Professor ECKERT.

Consideration of the principles, materials, and methods of teaching the wise use of natural resources.

Educ. 207. *METHODS AND MATERIALS FOR THE TEACHING OF GENERAL SCIENCE*. (U,G) 2 hours credit. Lectures, M T W Th F 8, and one laboratory or field trip per week to be arranged. Fernow 8. Assistant Professor ECKERT.

Consideration of problems of selection and organization of subject matter, of choice and use of materials, and of methods of teaching. (Given in a five-year cycle, emphasizing the teaching of general science, biology, physics, chemistry, and earth science.)

WORKSHOP IN SECONDARY SCHOOL ASTRONOMY. (See *Astronomy*, page 55.)

RESEARCH AND SPECIAL STUDIES

Educ. 199. *INFORMAL STUDY IN EDUCATION*. (U) Credit as arranged. Members of the staff of the School of Education.

Educ. 299. *EDUCATIONAL RESEARCH PROCEDURES AND TECHNIQUES*. (G) 2 hours credit. M T W Th F 8. Warren 101. Associate Professor SMITH.

Meaning of scientific method and research; attention given to appropriate techniques, instruments, and devices for research activities in education.

Educ. 300. *SPECIAL STUDIES IN EDUCATION*. (G) Credit as arranged. Members of the staff of the School of Education.

Students working on theses or other research projects may register for this course. The staff members concerned must be consulted before registration.

SECONDARY EDUCATION AND CURRICULUM

Educ. 33. *THE TEACHING OF ENGLISH IN SECONDARY SCHOOLS*. (U,G) 2 hours credit. M T W Th F 8. Goldwin Smith 236. Mrs. OCVRK.

The course is designed to help inexperienced and experienced teachers with methods and materials in the teaching of secondary English. Emphasis will be placed on the teaching of literature, composition, both oral and written, grammar, mechanics of expression, and correct usage. The class procedure and content will be adapted to the needs of individual members. Opportunity will be given for unit planning and work on special electives.

Educ. 222. *TEACHING WORLD HISTORY*. (G; U by permission) 2 hours credit. M T W Th F 10. Goldwin Smith 236. Miss KLEE.

The discussions will center about organization of the world history course, methods of vitalizing world history, appraisal of useful multisensory aids and means of evaluation. Opportunities will be given for members of the class to do specific planning to meet their own teaching needs.

Educ. 276. *PRINCIPLES OF CURRICULUM BUILDING*. (G) 2 hours credit (1 hour credit by special permission). M T W Th F 8. Warren 31. Associate Professor STUTZ.

A consideration of the major problems, principles, and techniques in determining educational objectives and curriculum scope and content in elementary and secondary schools. Special attention will be given to recent developments in the curriculum. Opportunity will be afforded for work on individual problems.

Teachers of vocational agriculture who attend the three-week session may register in the course for one hour of credit.

Educ. 290. *PRINCIPLES OF SECONDARY EDUCATION*. (G; U by permission) 2 hours credit. M T W Th F 10. Warren 31. Associate Professor STUTZ.

A study of recent trends in secondary education in the United States with attention to scope, aims, functions, organization, and curriculum. Special consideration will be given to a selected number of significant problems.

THEORY AND PHILOSOPHY

Educ. 244. *PHILOSOPHY OF EDUCATION*. (G) 2 hours credit. M T W Th F 11. Warren 245. Professor MOORE.

A critical consideration of educational philosophies which are generally recognized as significant influences upon education as an essential in American life.

Educ. 294. *BRITISH EDUCATIONAL HISTORY*. (G) 2 hours credit. M T W Th F 9. Warren 201. Mr. PERKINS.

A survey of the development of educational institutions in Great Britain, with

emphasis on the modern period and on the consideration of the influence of British education on developments in other countries.

Educ. 295. *COMPARATIVE EDUCATION*. (G; U by permission) 2 hours credit. M T W Th F 12. Plant Science 143. Mr. PERKINS.

An introduction to a comparative study of the principal problems of education. Among the problems discussed will be those relating to race, language, geography and climate, and economics. A comparison will be made of the educational institutions and ideas of a number of countries and regions.

SECOND ANNUAL ADMINISTRATORS' CONFERENCE

The School of Education will conduct the second annual work conference for administrators during the fifth week of the Summer Session, August 2-7. This year's conference will focus attention on "The Administrator as an Educational Leader." It will be of interest to principals, superintendents, supervisors, and other administrative officers. Full information may be secured from Lloyd E. Elliott, School of Education, Stone Hall, Cornell University.

SPEECH COURSES. For speech courses helpful to teachers, see *Speech for the Classroom Teacher* and *Teachers' Course in Phonetics and Speech Training*, page 42.

EXTENSION EDUCATION

From July 6 to July 24, inclusive, courses are offered primarily for the professional improvement of persons engaged in extension work in agriculture, home economics, and 4-H Club work. Afternoons will be partly devoted to optional activities such as field trips, recreation, special lectures, or seminars. These are unit courses. Students may select any two for a total credit of three hours for the three weeks. Tuition is \$40.00. For further details write to Professor L. D. Kelsey, Roberts Hall, Cornell University.

Each period is 75 minutes in length, with 15 minutes between classes. Courses daily except Saturday, July 18.

8 A.M.

Extch. 1u. *EXTENSION EVALUATION*. (G) 1½ hours credit. Daily. Warren 160. Mrs. SABROSKY.

This course includes practical techniques that any extension worker might use to appraise his work. It emphasizes clarifying objectives and teaching procedures as steps in the evaluation process, sampling procedures, and analysis, interpretation, presentation, and use of data. It is not the intention to make a studies expert of each student, but to give a concept of evaluation as an objective process necessary to program development and execution.

Extch. 7u. *EXTENSION INFORMATION AND COMMUNICATION*. (G) 1½ hours credit. Daily. Roberts 492. Professor TREASTER.

A course designed to assist county and state extension workers to use with maximum efficiency newspapers, radio, publications, circular letters, exhibits, posters, and visual aids. Throughout, suggestions are offered on subject-matter presenta-

tion. The workshop plan is followed, giving students opportunity to take part in discussions, newswriting, radio presentations, letter writing, and picture taking, and in planning for a practical program of information that can be used upon their return to their posts of duty. The course emphasizes the practical application of journalism to everyday extension work. It is a course planned "to learn by doing."

9:30 A.M.

Extch. 4u. *PROGRAM BUILDING IN EXTENSION EDUCATION.* (G) 1½ hours credit. Daily. Warren 260. Professor LEAGANS.

A systematic analysis of the extension program-building process, with emphasis on basic principles and procedures for applying them. The course is designed to help extension workers further develop a workable understanding of the nature of the program-building process and to help them acquire some useful approaches. Special consideration is given to procedures for (1) arriving at objectives for program, (2) designing educational activity likely to attain those objectives, and (3) organizing educational effort to attain continuity and integration in long-time programs. The approach is equally applicable to homemaking and agricultural activity. Students expecting to enroll in this course are encouraged to bring sample materials, such as county programs and statements of procedures now in use.

Extch. 8u. *PSYCHOLOGY FOR EXTENSION WORKERS.* (G) 1½ hours credit. Daily. Warren 160. Professor KRUSE.

A point of view in education and in psychology for extension workers. The nature of man, with emphasis on the tendencies basic to effective influencing human behavior. How people become changed as to their behavior. This phase treats of the nature of learning, basic principles of learning, major types of learning, and conditions favorable for learning.

11 A.M.

Extch. 2u. *LAND ECONOMICS AND MANAGEMENT.* (G) 1½ hours credit. Daily. Warren 160. Assistant Professor DAVIS.

This course is designed especially for county agricultural agents as counselors on various federal and regional programs of land use and management; as advisers to farmers, farm leaders, and others interested in public and private policy in connection with land use and land economics; as advisers to county committees for educational extension programs that concern technical fields of agronomy, economics, farm management, agricultural engineering, forestry and wildlife. Methods of organizing and conducting land management education and special problems in extension with diverse groups of landowners. Two field trips are taken.

Extch. 3u. *MANAGEMENT IN RELATION TO HOUSEHOLD EQUIPMENT.* (G) 1½ hours credit. Van Rensselaer G19. Professor WILLIAMSON.

A regular session each morning and two or three field trips to be arranged in afternoons.

Selection, use, care, and repair of household equipment in relation to individual family situations. Relative advantages of various types of equipment in performing certain tasks. Discussion with homemakers, manufacturers, distributors, and engineers. Trips to homes and retail stores. Selection and use of home appliances by extension workers for use in their teaching centers in extension offices and for teaching situations. Ways in which extension teachers can help homemakers select and use equipment to advantage.

Extch. 5u. *EXTENSION WORK WITH 4-H CLUBS AND YOUNG ADULTS.* (G) 1½ hours credit. Daily. Warren 260. Professor LANG.

A course especially designed for county 4-H Club agents and other extension youth workers. It deals with interests and needs, objectives, planning, methods, and leader training for 4-H Club work. The course will be conducted as a semi-workshop. Each person will need to develop a term paper preferably based upon a real problem. To know one's problem before coming and to be able to state it clearly will be helpful. Students are urged to bring files of their own materials for use in class work. Persons interested especially in "Young Adult Work" may be given individual attention.

ENGINEERING

CIVIL ENGINEERING

Engr. 2331. *FLUID MECHANICS.* (U) 3 hours credit. Required for students in mechanical and electrical engineering. Prerequisite, 1152. M T W Th F S 9. Temporary Bldg. No. 1, Room 229. Professor PRIEST.

Statics, dynamics of fluid flow, law of continuity, energy equation, turbulence, flow of compressible and incompressible fluids, impulse momentum relations, resistance of submerged bodies, lubrication, and hydraulic machinery. Several demonstration lectures are given to illustrate fluid mechanics principles. Text: *Elementary Fluid Mechanics*, Vennard.

Engr. 2715. *REINFORCED CONCRETE DESIGN.* (U) 3 hours credit. Required of all civil engineering students. Prerequisite, 2704. M T W Th F 1:30-4:00. Lincoln 221. Instructor to be announced.

A first course in reinforced concrete. Elementary theory of reinforced concrete, applied to rectangular slabs, T-beams, beams reinforced for compression, columns, and footings. Shear, diagonal tension, and direct stress combined with flexure are treated. Several design reports are required which include reinforcement drawings, schedules, and formwork. Text: *Design of Concrete Structures*, Urquhart and O'Rourke.

Engr. 2902. *ENGINEERING LAW.* (U) 3 hours credit. Required in fourth year. M T W Th F S 8. Lincoln 321. Professor THATCHER.

An introductory course in the laws of contract, tort, agency, real property, water rights, form of business organization, sales, and negotiable instruments; special emphasis on contract documents required on construction work; collateral topics such as workmen's compensation, mechanics' liens, bankruptcy, wills, western water law, and patent law are also included. Text: *Contracts in Engineering*, Tucker.

Engr. 2903. *ECONOMICS OF ENGINEERING.* (U) 3 hours credit. Required in fourth year. Prerequisites, 2901 and 3231. M T W Th F S 10. Lincoln 321. Professor THATCHER.

The economic aspects of engineering and the application of principles of management to the work of the engineer; economic selection of materials, equipment, and structures; studies for the replacement of existing units; plant layouts; public works economy; the technique of estimating quantities and costs for various types of engineering projects. Textbooks: *Principles of Engineering Economy*, Grant; *Construction Estimates and Costs*, Pulver.

SUMMER SURVEY CAMP

The School of Civil Engineering conducts a Summer Survey Camp for instruction in surveying for the five-week period between the close of the Summer Session and the beginning of the fall term. The camp is located on Cayuta Lake about 20 miles west of Ithaca. Instruction is primarily for civil engineering students who have completed the basic surveying courses on the campus. Persons desiring additional information should write to Director of Camp Cornell, School of Civil Engineering, Cornell University, Ithaca, New York.

ELECTRICAL ENGINEERING

Engr. 4111. *BASIC ELECTRICAL ENGINEERING II*. (U) 3 hours credit. Prerequisites, Mathematics 163, Physics 117, Chemistry 106. Recitations, M T W Th F 9. Computing, T Th 10-12:30. Franklin 116. Instructor to be announced.

The material in this course includes the following topics: electromagnetic induction; alternating emf; power-distribution circuits; self- and mutual-inductance, coupling reactors; electrostatic energy, fields, and forces; capacitance; transient and alternating currents in circuits with resistance and inductance, in circuits with resistance and capacitance, and in series and parallel circuits with resistance, inductance, and capacitance. LocI.

ENGINEERING MECHANICS

Engr. 1152. *MECHANICS OF ENGINEERING-DYNAMICS*. (U) 3 hours credit. Prerequisites, 1151 and Mathematics 163. M T W Th F S 10, W 1-2:30. Thurston 305. Mr. IWANOWSKI.

The principles of dynamics of particles and rigid bodies. Rectilinear, curvilinear, rotational, and general plane motion of rigid bodies. Impulse-momentum, work-energy, virtual work.

Engr. 1153. *STRENGTH OF MATERIALS*. (U) 3 hours credit. Prerequisites, 1151 and parallel registration in 1152. M T W Th F S 12, W 2:30-4. Thurston 304. Mr. THURSTON.

Stress and strain, tension, compression, and shear, riveted and welded joints, elementary beam theory, combined stresses, columns, strain energy beams on several supports.

Engr. 1154. *ADVANCED STRENGTH OF MATERIALS*. (U) 3 hours credit. Prerequisite, 1155. M T W Th F S 11, W 2:30-4. Thurston 305. Mr. IWANOWSKI.

Strength, stiffness and stability of machine parts, disks, plates, shells, thick cylinders, straight and curved beams; principal stresses in two and three dimensions; fatigue and theories of failure.

Engr. 1155. *APPLIED MATHEMATICS*. (U) 3 hours credit. Prerequisites, 1152 and 1153. M T W Th F S 11, W 1-2:30. Thurston 304. Mr. THURSTON.

The formulation and solution of problems arising in mechanical engineering which involve the use of elementary differential equations and Fourier Series. Emphasis is placed on numerical as well as analytical methods of solution.

ENGINEERING MATERIALS

Engr. 1222. *ENGINEERING MATERIALS*. (U) 3 hours credit. Prerequisite, 1221. M T W Th F 9, S 8-10. Thurston 202. Professor MOYNIHAN.

An elementary lecture course in engineering materials covering corrosion, fuels

and their combustion, refractories, cementing materials and concrete, wood, rubber plastics, lubricants, and the testing and inspection of materials.

Engr. 1231. *ENGINEERING MATERIALS LABORATORY—METALS AND ALLOYS*. (U) 3 hours credit. Prerequisites, Engineering Materials 1221 and Strength of Materials 1153. May be taken simultaneously with the latter course. M Th 1-4:30. Thurston 202. Professor MOYNIHAN.

A course dealing with materials testing and the properties of metals and alloys. The following types of tests with testing machines and strain measurement will be performed: tension, torsion, compression, bending, impact, fatigue, hardness, and ductility. The relation between the properties, structure, selection, inspection, and use of metals and alloys will be shown by the following experiments: carbon steels, cast irons, heat treatment, nonferrous metals and alloys, metallography spectrography, radiography, and magnaflux.

MECHANICAL ENGINEERING

Engr. 3235. *INDUSTRIAL ORGANIZATION AND MANAGEMENT*. (U,G) 3 hours credit. No prerequisite. Lectures, M T W Th F S 9, W 1-2:30. West Sibley, Room 1. Associate Professor SAMPSON.

An introductory course in the field of industrial management. The course starts with the industrial revolution and deals briefly with the principles of mass production, types of business enterprise, and the location and growth of industry. Then, in somewhat more detail, are discussed the organization of the plant facilities and the plant personnel with special emphasis on the layout of the plant, types of organizational control, personnel functions, motion and time study, and wage payment systems.

ENGLISH, SPEECH AND DRAMA

ENGLISH

Engl. 221. *INTRODUCTION TO POETRY*. (U,G) 2 hours credit. M T W Th F 12. Goldwin Smith 128. Associate Professor HEALEY.

A study of a considerable body of poetry, old and new, English and American, intended for those who wish to develop the skill needed for the intelligent reading of poetry.

Engl. 310. *ENGLISH POETRY OF THE SEVENTEENTH CENTURY*. (U,G) 2 hours credit. M T W Th F 9. Goldwin Smith 164. Assistant Professor NOVARR.

Emphasis on the metaphysical poets from Donne to Dryden.

Engl. 323. *BROWNING, TENNYSON, AND ARNOLD*. (U,G) 2 hours credit. M T W Th F 10. Goldwin Smith 164. Assistant Professor NOVARR.

Critical study of the major poems, to define the Victorian imagination.

Engl. 326. *CONTEMPORARY POETRY*. (U,G) 2 hours credit. M T W Th F 12. Goldwin Smith 164. Professor MIZENER.

Critical study of Pound, Eliot, Yeats, Auden, and others. Textbook: *Modern American Poetry; Modern British Poetry* (Combined Mid-Century edition), edited by Louis Untermeyer.

Engl. 330. *AMERICAN LITERATURE SINCE 1860*. (U,G) 2 hours credit. M T W Th F 8. Goldwin Smith 164. Dr. HARCOURT.

Emphasis upon trends in poetry (from Whitman), realism, and democratic ideals.

Engl. 333. *THE ENGLISH NOVEL IN THE EIGHTEENTH CENTURY.* (U,G) 2 hours credit. M T W Th F 11. Goldwin Smith 128. Associate Professor HEALEY.

A study of five novels, selected from the best-known works of Daniel Defoe, Henry Fielding, Lawrence Sterne, Oliver Goldsmith, and Tobias Smollett.

Engl. 335. *THE MODERN AMERICAN NOVEL.* (U,G) 2 hours credit. M T W Th F 11. Goldwin Smith 164. Professor SALE.

A critical study of representative American novelists including James, Edith Wharton, Willa Cather, Hemingway, Fitzgerald, and Faulkner.

Engl. 342. *MODERN BRITISH DRAMA.* (U,G) 2 hours credit. M T W Th F 10. Goldwin Smith 128. Associate Professor KEAST.

The principal British dramatists from Shaw to Eliot and Ustinov, considered in relation to British dramatic traditions.

Engl. 359. *THE IRISH LITERARY RENAISSANCE.* (U,G) 2 hours credit. M T W Th F 10. Goldwin Smith 124. Professor MIZENER.

Study of the leading figures of the Irish literary renaissance, such as Joyce, O'Casey, Yeats, and Synge.

Engl. 369. *SHAKESPEARE.* (U,G) 2 hours credit. M T W Th F 9. Goldwin Smith 128. Associate Professor KEAST.

The comedies, tragicomedies, and history plays; a critical consideration of representative plays and of their place in the development of Elizabethan drama.

Engl. 382. *THE ENGLISH LANGUAGE.* (U,G) 2 hours credit. M T W Th F 11. Goldwin Smith 124. Associate Professor HATHAWAY.

The course will be divided between the development of the language and several current problems: authorities for usage, levels of usage, syntax, grammatical concepts, and semantics. No special training in foreign languages is required. Principally for English teachers who wish to explore some of the implications of language teaching.

Engl. 385. *CREATIVE WRITING.* (U,G) 2 hours credit. M T W Th F 9. Goldwin Smith 124. Associate Professor HATHAWAY.

Particular emphasis upon writing short stories and poetry, though other kinds of writing may be undertaken. Analysis of students' writing, study of models and trends, personal conferences.

SPEECH AND DRAMA

Sp.&Dr. 101. *PUBLIC SPEAKING.* (U) 2 hours credit. M T W Th F 11. Goldwin Smith 26. Professor WICHELNS.

Practice in speechmaking on topics of current interest. Methods of preparation and delivery studied as a guide to practice; class discussions; conferences. Regular students passing the course are admitted to Speech and Drama 102 and 213. Textbook: Soper's *Basic Public Speaking*.

Sp.&Dr. 131. *VOICE TRAINING.* (U,G) 2 hours credit. M T W Th F 8. Goldwin Smith 21. Professor THOMAS.

An elementary course for the improvement of the speaking voice. Individual and group practice in the overcoming of such faults as nasality, weak quality, and

indistinctness. Attention to the principles of voice production. Textbook: Anderson's *Training the Speaking Voice*.

Sp.&Dr. 207. *CONFERENCE AND GROUP LEADERSHIP*. (U,G) 2 hours credit. M T W Th F 9. Goldwin Smith 26. Associate Professor ARNOLD.

Introduction to principles and methods of group inquiry with special attention to organizing and leading deliberation in groups of various sizes. Topics of study will include theories of leadership, the dynamics of deliberative groups, speech as a means of group control, types and forms of group organization including parliamentary procedures. Readings, lectures, practice in formal and informal situations. Textbooks: Haiman's *Group Leadership and Democratic Action* and O'Brien's *Parliamentary Law for the Layman*. This course may precede or follow Speech and Drama 205, *Conference Methods and Group Discussion*, which is offered in alternate summers.

Sp.&Dr. 231. *SPEECH FOR THE CLASSROOM TEACHER*. (U,G) 2 hours credit. M T W Th F 12. Goldwin Smith 21. Associate Professor ARNOLD.

This course is designed to help teachers in elementary and secondary schools improve in the speech skills and forms of communication they constantly use: oral exposition, dialogue and recitation, discussion, reading aloud, public speaking. Study of principles; constant practice; conferences on individual needs. Textbook: Sorrenson's *Speech for the Teacher*.

Sp.&Dr. 285. *PUBLIC SPEAKING IN AMERICA TODAY*. (U,G) 2 hours credit. M T W Th F 10. Goldwin Smith 134. Professor WICHELS.

A study of selected speeches on a few current questions of domestic and foreign policy to illustrate the character and quality of contemporary public discussion. Lectures, discussions, readings, and reports. Textbook: Harding's *Age of Danger*.

Sp.&Dr. 290. *THESES AND SPECIAL PROBLEMS IN PUBLIC ADDRESS*. (G) 2 or more hours credit. Professors WICHELS and ARNOLD.

Required of regularly registered Summer Session graduates working on theses. Open to other graduates prepared for independent study of special topics in rhetoric and public speaking.

Sp.&Dr. 333. *TEACHERS' COURSE IN PHONETICS AND SPEECH TRAINING*. (U,G) 2 hours credit. M T W Th F 9. Goldwin Smith 21. Professor THOMAS.

A study of English phonetics, pronunciation, and the improvement of speech; primarily for secondary and elementary school teachers. Textbook: Thomas' *Introduction to Phonetics of American English*.

Sp.&Dr. 390. *THESES AND SPECIAL PROBLEMS IN SPEECH TRAINING AND PHONETICS*. (G) 2 or more hours credit. Professor THOMAS.

Required of regularly registered Summer Session graduates working on theses. Open to other graduates prepared for the independent study of special topics in speech training and phonetics.

Sp.&Dr. 401. *DRAMATIC PRODUCTION: DIRECTION*. (U,G) 2 hours credit. M T W Th F 10. Morse, Stage Laboratory. Professor STANTON.

For upperclassmen and graduates. Theory of stage direction; fundamentals of theatrical mounting; survey of practical phases of production. Prerequisite for further work in dramatic production. Textbook: Dolman's *Art of Play Production*.

Sp.&Dr. 421. *DRAMATIC INTERPRETATION AND ACTING*. (U,G) 2 hours credit. M W F 2-4. Goldwin Smith 24. Associate Professor McCALMON.

A practice course in oral interpretation, pantomime, acting, and group rehearsal. Textbook: Albright's *Working Up a Part*.

Sp.&Dr. 433. *THEATRE PRACTICE*. (U,G) 2 or 4 hours credit. Hours to be arranged. Mr. CREPEAU.

Technical practice coordinated with the regular productions of the Summer Theatre; readings in the techniques involved.

Sp.&Dr. 455. *AMERICAN DRAMA AND THEATRE*. (U,G) 2 hours credit. M T W Th F 11. Goldwin Smith 124. Associate Professor MCCALMON.

A study of the American theatre and of representative American plays from the Colonial period to the present. Emphasis is on the drama as a reflection of cultural history and, in turn, as a cultural influence. Textbook: Hughes' *A History of the American Theatre: 1700-1950*.

Sp.&Dr. 475. *INTRODUCTION TO MODERN THEORIES OF DRAMATIC PRODUCTION*. (U,G) 2 hours credit. M T W Th F 9. Goldwin Smith 124. Associate Professor ALBRIGHT.

Principles of theatrical presentation, with special attention to the development of modern theatre art and criticism. Lectures, readings, and reports. Textbook: Gorelik's *New Theatres for Old*.

Sp.&Dr. 480. *THE MOTION PICTURE: A SURVEY*. (U,G) 2 hours credit. M T W Th F 12. Morse, Stage Laboratory. Professor STANTON.

The development of the motion picture as a modern art. Characteristic problems and devices of the art; economic and social aspects; the documentary film; the educational film. Numerous films will be viewed. Students are urged to attend the film programs of the Summer Theatre.

Sp.&Dr. 490. *THESES AND SPECIAL PROBLEMS IN DRAMA AND THE THEATRE*. (G) 2 or more hours credit. Professors STANTON, ALBRIGHT, and MCCALMON.

Required of regularly registered Summer Session graduates working on theses. Open to other graduates prepared for the independent study of special topics in drama and the theatre.

SPEECH CLINIC. For students working under the direction of the department. Professor THOMAS. By appointment. No credit.

Students may elect a major and/or minor with emphasis on (1) Public Address, (2) Phonetics and Speech Training, (3) Drama and the Theatre. For students planning a program of graduate studies in successive summers, advanced courses in each of these three areas are offered in alternating sessions, and special provision is made for directed independent study.

FINE ARTS

ART: HISTORY AND APPRECIATION

Art 102. *INTRODUCTION TO RENAISSANCE AND MODERN ART*. (U,G) 2 hours credit. Lectures, M T W Th F 12. Goldwin Smith Museum. Professor WAAGE.

The relationship of art to society in Western Europe from 1400 to the present, as exemplified in the works of the major painters and sculptors.

Art 507. *TWENTIETH CENTURY ART*. (U,G) 2 hours credit. Lectures, M T W Th F 10. Goldwin Smith 35. Professor WAAGE.

The consequences of the divorce of painting and sculpture from social function; painters' painting and expressionism; individualistic and clique vagaries; attempts toward reintegration.

MUSIC

Music 101. *THE ART OF MUSIC*. (U) 3 hours credit. M T W Th F 11, and individual conferences to be arranged after consultation. Music Bldg. 6. Associate Professor AUSTIN.

An approach to the understanding and rational enjoyment of the art of music, offered especially for students who have had no technical training in the subject. Most of the outside work consists of listening to phonograph records; individual assignments are made in accordance with the varying interests and abilities of the students.

Music 103. *INTRODUCTION TO MUSIC THEORY*. (U) 2 hours credit. M T W Th F 9. Music Bldg. 6. Associate Professor AUSTIN.

Designed for the general student with little or no knowledge of the rudiments of music. Some ability to play an instrument is desirable but not required. Includes elementary ear training; intervals, scales, triads, and keys; rhythmic, melodic, and harmonic dictation; sight singing; writing of melody and simple four-part texture; analysis and keyboard harmony.

Music 031. *INFORMAL STUDY*. (G) Credit and time to be arranged after consultation. Associate Professor AUSTIN.

Music 377. *SEMINAR IN MUSICOLOGY*. (G) Credit and hours to be arranged after consultation. Prerequisites, a knowledge of music theory and general music history and some skill in applied music and score reading; also (depending on the topic chosen) a reading knowledge of the requisite foreign language or languages. A particular topic of study will be assigned to each student after consultation. Music Bldg. 7. Professor GROUT.

Music 401. *INDIVIDUAL INSTRUCTION IN VOICE AND ORGAN*. (U) 1 hour credit (this credit may be counted toward a Cornell degree only by those students who have at least two hours' credit in theoretical or historical music courses). Prerequisite, consent of the instructor. Hours to be arranged. Students in voice may arrange to specialize in voice production or repertoire; the latter may be subdivided to allow specialization in Oratorio, Lieder, English Lutenist Songs, or Modern English Songs.

For two half-hour voice lessons weekly throughout the Summer Session with Mr. FALKNER, a special fee of \$40 is charged. For two half-hour organ lessons weekly with Mr. BEAVEN, a special fee of \$30 is charged. Fees are payable at the office of the Department of Music at the time of registration with the instructor.

Music 406. *CHORUS*. (U) 1 hour credit. Prerequisite, consent of the instructor. M W F 10. Music Bldg. 6. Associate Professor FALKNER.

The chorus is open to all students, either with or without credit. The three meetings are devoted to rehearsal and brief lectures, and it is expected that the chorus will take part in a public concert during the Summer Session. Students taking this course for credit are expected to spend a requisite amount of time in outside preparation and to pass an examination at the end of the course.

PAINTING

Arch. 300. *PAINTING AND COMPOSITION*. (U,G) 2 hours credit. M T W Th F 8-10. Morse 101. Associate Professor DALY.

A studio course dealing with the fundamentals of painting. In the study of some of the principal considerations of modern art, the classroom assignments progress from simple to more complex pictorial organizations. Though not an elementary presentation, the course has no prerequisites and is open to both beginners and intermediate students. Media: tempera and casein.

Arch. 309. *PAINTING AND COMPOSITION*. (U,G) 2 to 6 hours credit. M T W Th F 10-12. Registration by permission of the instructor. May be repeated for credit. Morse 120. Associate Professor DALY.

Arch. 324. *WORKSHOP FOR THE ART TEACHER*. (G) 2 hours credit. M T W Th F 10-12. Room to be assigned. Associate Professor DALY.

Combined seminar and studio course. Problems of materials and methods for teaching art in primary and secondary schools; for those who have art teaching experience as well as those who are teaching art in the primary grades for the first time. Individual needs are considered, and opportunity for discussion is provided. Part of the course is given to planning art curricula and to methods of presentation and emphasis.

HOME ECONOMICS

CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS

*C.D.&F.R. 315. *CHILD DEVELOPMENT*. (U,G) 2 hours credit. M T W Th F 9. Van Rensselaer G62. Professor BRONFENBRENNER.

The aim of this course is to give the student an understanding of structure, function, and development of the growing human being as the result of interplay between biological, psychological, and social factors. Course material is drawn from the pertinent behavioral sciences. Fee, \$2.

*C.D.&F.R. 328. *HEALTH OF THE SCHOOL CHILD*. (U,G) 2 hours credit. M T W Th F 8. Van Rensselaer G62. Mrs. TAIETZ.

The purpose of this course is to consider health services for the school-age child. Attention is given to the physical growth of the child; the physical and psychological aspects of the school environment; accident prevention; school health services; the relationship of the home and the community in the school health program; the teacher and the health curriculum. The teaching methods will include lectures, demonstrations, discussions, and films. Fee, \$2.

*C.D.&F.R. 340. *CREATIVE PLAY IN CHILDHOOD*. (U,G) 2 hours credit. M T W Th F 11. Van Rensselaer 121. Professor REEVES.

An exploration of the meaning of play to the developing child. Consideration of the play environment as a source of self-discovery and self-realization. Observation of children in a variety of play situations. Evaluation of play materials and equipment in the light of child use. Fee, \$2.

*C.D.&F.R. 351. *CHILDREN'S LITERATURE*. (U,G) 2 hours credit. M T W Th F 9. Van Rensselaer 121. Professor REEVES.

Literature as a resource in children's living. The relation of children's literature to world literature. Traditional and modern forms. Illustration in children's books. Reading interests of children two to twelve. Fee, \$2.

*C.D.&F.R. 360. *PSYCHODYNAMICS OF HUMAN BEHAVIOR*. (U,G) 2 hours credit. M T W Th F 12. Van Rensselaer G62. Assistant Professor DEMPSEY.

A study of the motivating forces in human behavior. Both conscious and uncon-

sious processes directing behavior will be considered. Special attention will be given to learning and change in motivation as these relate to the tasks of teacher and parent. Fee, \$2.

*C.D.&F.R. 370. *MARRIAGE*. (U,G) 2 hours credit. Prerequisite, a basic course in psychology or sociology, or permission of the instructor. M T W Th F 8. Van Rensselaer 121. Associate Professor POPE.

This course is designed to acquaint the student with the growing body of scientific knowledge concerning marriage, the experiences that precede it, and the adjustments, satisfactions, and problems growing out of it. Such topics as the following will be discussed: emotional and social maturity and readiness for marriage; courtship, choice of mate, and engagement; predicting success or failure in marriage; personality and social factors in marriage adjustment; sex life in marriage; pregnancy and parenthood; the married woman and outside employment; marital failure and divorce; sources of help for troubled marriages. Fee, \$2.

*C.D.&F.R. 381. *THE TEACHER AS COUNSELOR*. (U,G) 2 hours credit. T Th 2-4:30. Van Rensselaer 121. Assistant Professor FELDMAN.

A survey will be made of those theories and methods which are most applicable to the teacher's role as both individual and group counselor. Teaching methods will include lectures, discussions, readings, films, case illustrations, and demonstrations. Fee, \$2.

*C.D.&F.R. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Assistant Professor FELDMAN and department staff.

For graduate students recommended by their chairmen and approved by the head of the department and the instructor in charge for independent, advanced work. Fee dependent on the nature of the problem.

*C.D.&F.R. 407. *INDIVIDUAL RESEARCH IN CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS*. (G) 1 to 6 hours credit. Registration by permission of the instructor; hours by arrangement. Assistant Professor FELDMAN and members of the staff.

This is planned for students who are ready to undertake their own research and theses. Fee dependent on the nature of the problem.

*C.D.&F.R. 461. *DYNAMICS OF FAMILY INTERACTION*. (G) 2 hours credit. W F 2-4:30. Van Rensselaer G60. Associate Professor DEVEREUX.

The framework within which the dynamics of family interaction will be considered is as follows: the interrelations of the male and the female, of the younger, middle, and older generations, and of the child's own generation, siblings, and peer group, at successive stages of the family cycle. As background for this approach, brief consideration is given to the cultural milieu in which the contemporary American family has its being. Fee, \$2.

WORKSHOP

C.D.&F.R. 334u. *CARE OF YOUNG CHILDREN IN NEW YORK STATE MIGRANT CAMPS*. Presession, June 17-30. (U,G) 2 hours credit. Hours to be arranged. Limited to 15 students. Miss EDWARDS.

An intensive study of the problems relevant to the group care of children of migrant camp families. Emphasis will be placed upon the development of a program of child care and guidance to meet the special conditions. Students will be

helped to deepen their understanding of the home conditions of migrant families and of the growth and development of young children. Tuition, \$30.

Those interested should apply to Miss Frances McKnight, Box 86, Homer, New York, by May 16, 1953. Students will then be notified of their acceptance.

ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT

*Ec.Hs. 310. *MANAGEMENT IN FAMILY LIVING*. (U,G) 2 hours credit. Discussion, group projects, and field trips, T Th 2-5. Van Rensselaer G-19. Miss SNOWMAN.

A study of the ways in which different families manage with their available resources to attain their purposes. An opportunity to work with family members in their homes on a solution of some of their management problems. Simplification of work as one means of managing. Demonstrations, motion pictures, slides, photographs, and work centers set up in the laboratory. Opportunity for preparing illustrative material. One all-day tour, time to be arranged. Fee, \$6.

*Ec.Hs. 320. *MANAGEMENT IN RELATION TO HOUSEHOLD EQUIPMENT*. (U,G) 2 hours credit. M 2, W F 2-4, and two hours for laboratory practice to be arranged at the student's convenience. Van Rensselaer G-19. Professor WILLIAMSON.

Selection, use, care, and repair of household equipment in relation to individual situations. Relative advantages of various types of equipment in performing certain tasks. Discussions with homemakers, manufacturers, distributors, and engineers. Trips to homes and retail stores. Selection and use of home appliances in school situations. Fee, \$3.

*Ec.Hs. 330. *MANAGEMENT IN RELATION TO PERSONAL FINANCES*. (U,G) 2 hours credit. M T W Th F 10. Van Rensselaer 301. Assistant Professor MANNING.

The management procedure applied to individual and family problems involving finances. The influence of economic conditions, as well as personal circumstances, on one's financial situation. The effect of standards of living on the amount spent. Problems connected with estimating future expenditures. Considerations in developing a savings program and in purchasing insurance. The nature of investments in real estate and government and corporate securities. Advantages and disadvantages in the use of credit; variations among credit agencies. Problems in arranging for transfer of property to heirs. Various types of records helpful in managing. Fee, \$2.

*Ec.Hs. 403. *SPECIAL PROBLEMS IN ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT*. (G) Credit and hours to be arranged. Registration by permission. Staff of the Department.

For graduate students recommended by their chairmen and approved by the head of the department and the instructor in charge for independent, advanced work. Fee will be dependent on the nature of the problem.

*Ec.Hs. 407. *THESIS AND RESEARCH IN ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Staff of the Department.

Fee will be dependent on the nature of the problem.

*Ec.Hs. 430. *ECONOMIC CONDITIONS IN RELATION TO THE WELFARE OF FAMILIES*. (G) 2 hours credit. M T W Th F 12. Van Rensselaer 121. Professor ROLLINS.

The relationship between the economic welfare of families and the total amount of goods and services produced, the distribution of income, and the general level of prices. Influence of such institutions as specialization, industrialization, money, marketing, and taxation. The interrelationship between outside economic conditions and economic activities in the home. Fee, \$1.

FOOD AND NUTRITION

*F.&Ntr. 320. *EXPERIMENTAL COOKERY*. (G) 2 hours credit. Prerequisite, previous courses in food preparation and chemistry satisfactory to the instructor. Discussion and laboratory, M T W Th 1-4. Van Rensselaer 358. Associate Professor BRIANT.

Independent laboratory work in the solving of practical problems in food preparation. Study of methods and techniques used in experimental work. Judging of food products. Fee, \$12.

*F.&Ntr. 326. *CURRENT TRENDS IN FOODS*. (G) 2 or 3 hours as arranged. Intended for teachers, including extension workers and others who wish to increase their understanding of the up-to-date principles of food preparation. M T W Th F 10-12. Van Rensselaer 356. Professor PFUND.

A lecture-demonstration course designed to help the student understand the modern scientific concepts of food through the examination and evaluation of prepared products. Demonstrations to illustrate selected effects will be planned jointly by students and instructor and will be executed by the students. The areas covered will be selected by the members of the class. Possibilities are: sugar cookery, starch cookery, baked products, gelatin products, frozen desserts, eggs and egg products, meats, fish, beverages, vegetables, fruits, and food preservation. Variations in products brought about through changes in procedure, in amounts of ingredients, and in kinds of ingredients will be considered separately. The needed scientific background will be presented and discussed. Fee, \$6.

*F.&Ntr. 328. *RECENT FINDINGS IN NUTRITION*. (U,G) 2 hours credit. Prerequisite, a college course in nutrition. The course is not open to students who have had advanced courses in nutrition within the past two years. Lectures and discussions, M T W Th F 9. Van Rensselaer 339. Professor STEININGER.

Planned for students who wish to bring their information about nutrition up-to-date. The topics studied will be those which are related to practical problems in human nutrition. Emphasis on energy metabolism and vitamins. Fee, \$1.

*F.&Ntr. 350. *PROBLEMS IN TEACHING FOOD AND NUTRITION*. (G) 2 hours credit. Prerequisite, experience in teaching adults or extension work and permission of the instructor. Discussions, M T W Th F 8. Van Rensselaer 301. Associate Professor DUDGEON.

Discussion of problems which arise in teaching food and nutrition to lay groups. The choice of subject matter, illustrative material, and methods of presentation for various adult groups will be discussed. Fee, \$1.

*F.&Ntr. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Professor STEININGER and Department staff.

For graduate students recommended by their chairmen and approved by the head of the department and the instructor in charge for independent, advanced work. Fee will be dependent on the nature of the problem.

*F.&Ntr. 407. *THESIS AND RESEARCH*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Professor STEININGER and Department staff.

Fee will be dependent on the nature of the problem.

HOME ECONOMICS EDUCATION

See *Education*, page 32.

HOUSING AND DESIGN

*H.&Des. 310. *STUDY OF ROOMS, SELECTION AND ARRANGEMENT OF FURNISHINGS*. (U,G) 2 hours credit. No prerequisite but previous study of color and design desirable. M T W Th F 2-4. Van Rensselaer 408. Associate Professor CADY.

A study of functional arrangement and design in furnishings. The selection and arrangement of furnishings in relation to family needs; the relation of furnishings to the architectural features of rooms. Fee, \$10.

*H.&Des. 319. *CONTEMPORARY DESIGNERS*. (U,G) 2 hours credit. M T W Th F 10. Van Rensselaer 317. Professor TRUE.

A lecture-discussion course dealing with current developments in the field of design; trends in design as represented by the work of a selected group of designers in various areas; activities of art organizations such as museums, galleries, and associations. Fee, \$5.

*H.&Des. 347. *CHOOSING THE HOUSE AND THE NEIGHBORHOOD*. (U,G) 2 hours credit. M T W Th F 9. Van Rensselaer 3M11. Associate Professor MONTGOMERY.

Examination of the major issues involved in acquiring a house: (1) guides to securing shelter—whether to own or rent, and how to choose a house and a neighborhood; (2) the roles and practices of those concerned with providing houses—the architect, banker, labor, materials supplier, contractor, merchant builder, prefabricator, real estate agent, and government. Fee, \$5.

*H.&Des. 348. *HUMAN FACTORS IN HOUSING*. (U,G) 2 hours credit. M T W Th F 11. Van Rensselaer 318. Associate Professor MONTGOMERY.

An analysis of family housing needs as affected by geographic location, income, family life cycle, etc. Contrasts will be studied between housing in the United States and selected nonliterate societies. Fee, \$5.

*H.&Des. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. (G) Credit and hours to be arranged. Department staff.

For graduate students recommended by their chairmen and approved by the head of the department and the instructor in charge for independent, advanced work. Fee will be dependent on the nature of the problem.

*H.&Des. 407. *THESIS AND RESEARCH*. (G) Credit to be arranged. Registration with permission of instructor. Department staff.

Fee will be dependent on the nature of the problem.

INSTITUTION MANAGEMENT

*I.Mgt. 230. *QUANTITY COOKERY*. (U,G) 2 or 3 hours credit. Prerequisite, college courses in food preparation and nutrition. Lecture, T Th 2-3; lab-

oratory, M W F 2-5:30. Students taking the course for 3 hours credit will spend approximately 5 additional hours in quantity food production or in other appropriate experiences. Van Rensselaer G62 and Cafeteria kitchen. Assistant Professor MOORE.

Lectures and discussions include underlying principles and basic procedures in quantity food preparation in relation to quality, quantity, and cost control. The findings and applications of research in these areas will be reviewed. Laboratories give practice in food production, the use of institution equipment, and recipe costing in each department of the Home Economics Cafeteria kitchen where food is prepared for approximately 1,800 persons daily. Fee, \$12.

*I.Mgt. 320. *FOOD SERVICE ORGANIZATION AND ADMINISTRATION*. (U,G) 2 or 3 hours credit. Prerequisite, a college course in some aspect of food administration or equivalent experience acceptable to the instructor. Lecture and discussions, M W F 11-12:30 and T 3-5. Students taking the course for 3 hours credit will spend approximately 5 additional hours each week on appropriate experiences or assignments. Van Rensselaer 3M11. Associate Professor PROUD.

The course is designed primarily for undergraduate and graduate students who are preparing for the field of managerial dietetics or food administration and partially fulfills the requirements of the American Dietetic Association. Emphasis is on food service organization, operational problems and procedures, cost control, and kitchen planning. Fee, \$2.

I.Mgt. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Professor HARRIS and department staff.

For graduate students recommended by their chairmen and approved by the head of the department and the instructor in charge for independent, advanced work.

I.Mgt. 407. *THESIS AND RESEARCH*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Professor HARRIS.

*I.Mgt. 410. *SEMINAR IN INSTITUTION MANAGEMENT*. (G) 1 hour credit. Prerequisite, college courses and experience in food service administration. M W 2-3:30. Van Rensselaer 301. Professor HARRIS.

This seminar will review new developments, including the contributions of research, relevant to various aspects of food service administration or managerial dietetics. Fee, \$2.

TEXTILES AND CLOTHING

*T.&Clo. 210. *DESIGN AND COLOR IN APPAREL*. (U,G) 2 hours credit. M T W Th F 10-12. Van Rensselaer 216. Assistant Professor SINGLETON.

A course planned to give opportunity for creative experience and to help develop appreciation of fine design and skill in achieving beauty of costume in relation to the wearer.

Laboratory practice includes the study of design problems, experimentation with fabric and color combinations, experience in the use of source material as inspiration for designing clothes, other problems adapted to the needs and interests of the students. Textbook: Grace Margaret Morton, *The Arts of Costume and Personal Appearance*. Materials to be provided by the students at an estimated cost of \$5. Fee, \$5.

*T.&Clo. 215. *FITTING AND PATTERN MAKING*. (U,G) 2 hours credit. Prerequisite, professional experience or course work in the area of clothing design and construction acceptable to the instructor. M T W Th F 2-4. Van Rensselaer 215. Assistant Professor SINGLETON.

A course planned primarily for teachers to give a background of pattern making as it relates to design, pattern alteration, and fitting.

Laboratory problems include fitting a basic pattern, practice in pattern making, the making of two garments, one of which may not be carried through to completion. Materials to be provided by the students at an estimated cost of \$15-\$35. Fee, \$5. Textbook: Harriet Pepin, *Modern Pattern Design*.

*T.&Clo. 250. *DRAPING, FITTING, AND CONSTRUCTION*. (U,G) 2 hours credit. Prerequisite, professional experience or course work in the area of clothing design and construction acceptable to the instructor. M T W Th F 8-10. Van Rensselaer 234. Associate Professor HUMPHREY.

Laboratory problems will include practice in developing designs through draping, and the draping of two garments, one of which is carried through to completion. Materials to be provided by the students at an estimated cost of \$15-\$25. Fee, \$5.

*T.&Clo. 335. *DRESSMAKING*. (U,G) 2 hours credit. Prerequisite, course work in elementary construction acceptable to the instructor. M T W Th F 11-1. Van Rensselaer 234. Associate Professor HUMPHREY.

A workshop type of course concerned with the dressmaking problems which enter into the selection and construction of clothes for different age groups and for the individual. Materials to be provided by the students at an estimated cost of \$10-\$15. Fee, \$5.

T.&Clo. 401. *RESEARCH METHODS IN TEXTILES AND CLOTHING*. (G) 2 hours credit. M T W Th F 10. Van Rensselaer 217. Associate Professor RYAN.

A course designed to help those planning to write a thesis. Includes areas of possible research in textiles and clothing, the formulating of problems, methods of collecting data, treatment of data and writing. Each student completes a small problem.

*T.&Clo. 403. *SPECIAL PROBLEMS IN TEXTILES AND CLOTHING*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Department staff.

For graduate students recommended by their chairmen and approved by the department head and the instructor in charge for independent advanced work. Students will assume any expense involved unless otherwise previously arranged. Fee will be dependent on the nature of the problem.

*T.&Clo. 407. *THESIS AND RESEARCH*. (G) Credit and hours to be arranged. Registration with permission of the instructor. Department staff.
Fee will be dependent upon the nature of the problem.

*T.&Clo. 430. *CLOTHING AS RELATED TO HUMAN BEHAVIOR*. (U,G) 2 hours credit. M T W Th F 12. Van Rensselaer 217. Associate Professor RYAN.

Critical review of literature concerned with social-psychological aspects of clothing with emphasis on methods of approach. The formulation and planning of a problem in this field. Fee, \$1.

HOTEL ADMINISTRATION

In 1922 Cornell University established, with the cooperation and financial assistance of the American Hotel Association, a four-year course in hotel administration for high school graduates desiring to enter the administrative departments of the hotel business. Many hotel proprietors and managers who have been unable to take a four-year university course have asked for shorter courses with less formal entrance requirements.

To meet this demand, the Summer Session work in hotel administration is given in unit courses, one to three weeks in length. A circular giving full details of these courses has been issued and will be sent upon request. For this circular, for other information about the work in this department, and for admission to these courses, address Professor H. B. Meek, Statler Hall, Cornell University, Ithaca, New York.

INDUSTRIAL AND LABOR RELATIONS

I.&L.R. 293. *SURVEY OF INDUSTRIAL AND LABOR RELATIONS*. (U,G) 2 hours credit. M T W Th F 8. I.&L.R. Bldg. 10A. Associate Professor MACINTYRE.

The course will include an analysis of the major problems in industrial and labor relations: labor union history, organization, and operation; labor market analysis and employment practices; industrial and labor legislation and social security; personnel management and human relations in industry; collective bargaining; mediation and arbitration; the rights and responsibilities of employers and employees; the major governmental agencies concerned with industrial and labor relations.

I.&L.R. 361. *WAGE AND SALARY ADMINISTRATION*. (U,G) 2 hours credit. M T W Th F 9. I.&L.R. Bldg. 10A. Assistant Professor GORDON.

Intensive analysis and discussion on administrative factors that influence the planning, development, and implementation of selected phases of wage and salary administration. The actual subject matter will be limited in order to permit intensive analysis and will be tailored to meet the needs of the people in the course. Topics may include: union-management cooperation in job evaluation; the administration of individual and group incentives—bonus, commissions, and profit-sharing; the use of community and industry pay data; the establishment of wage rates and salary schedules; supervisory and executive compensation; arrangements for budget, review, control and appraisal of existing practices; analysis of selected wage and salary programs.

I.&L.R. 401. *COLLECTIVE BARGAINING*. (U,G) 2 hours credit. M T W Th F 9. I.&L.R. Bldg. 22. Associate Professor CARPENTER.

A comprehensive survey covering the negotiation and administration of labor agreements. Attention will be given to the strategies and techniques of the bargaining process, to the substantive issues of collective bargaining, and to questions of public policy as reflected in pertinent legislation. Major emphasis will be placed upon the operation of grievance machinery in handling day-to-day cases that involve the interpretation, application, and enforcement of collective agreements.

I.&L.R. 442. *ECONOMICS OF THE LABOR MARKET*. (U,G) 2 hours credit. M T W Th F 11. I.&L.R. Bldg. 22. Associate Professor FERGUSON.

Examination of wage and employment problems in the individual firm, the industry, and the economy. Topics will include: measurement of wages, income, and labor cost; characteristics of labor markets; occupational wage rates; wage deter-

mination by employers and under collective bargaining; effects of wage changes on profits and employment; governmental regulation of wages; trends in productivity and national income; labor force and employment problems.

I.&L.R. 451. *THE AMERICAN LABOR UNION*. (U,G) 2 hours credit. M T W Th F 12. I.&L.R. Bldg. 22. Associate Professor FERGUSON.

The historical development, administration, and operations of trade unions, with special emphasis on appraisal and understanding of the activities of the local union today. Federations and national and local unions will be studied with respect to structure, government, leadership, membership. The goals of unions will be analyzed, together with the methods organized labor uses to attain its aims, such as collective bargaining, political action, education, and union-sponsored welfare and benefit programs.

I.&L.R. 461. *SUPERVISION OF PERSONNEL*. (U,G) 2 hours credit. M T W Th F 10. I.&L.R. Bldg. 22. Assistant Professor GORDON.

Consideration of the supervisor's personnel and human relations responsibilities in planning, organizing, scheduling, and directing employee work effort; and the supervisor's relationships with higher supervision. The number of topics will be limited and will be tailored to meet the needs of people in the course. Coverage may include some of the following areas: the supervisor's responsibility for developing effective work teams, better communications, and sound human relations; the supervisor's relationship with the union; selecting, developing, motivating, and retaining an adequate work force; development of techniques for interviewing, correction and discipline, adjusting complaints and grievances, and aiding in the solution of employee problems. Opportunity for intensive discussion, analysis, and case study.

I.&L.R. 495. *INDUSTRIAL COMMUNICATIONS*. (U,G) 2 hours credit. M T W Th F 11. I.&L.R. Bldg. 14. Professor HODGES.

Factors affecting receptivity and believability of communications between employees and levels of supervision, between line and staff, and between union and management. Analyses of internal and external communications problems in typical industrial and business concerns, in unions, and in government agencies.

I.&L.R. 560. *PERSONNEL ADMINISTRATION*. (U,G) 2 hours credit. M T W Th F 8. I.&L.R. Bldg. 22. Associate Professor CARPENTER.

A basic course covering the major areas of personnel administration: recruitment, selection and placement, training, transfers and promotions, service records, discipline, layoffs and discharges, job analysis, hours and wages, health and safety, communications and morale, employee services, and personnel research. Attempts will be made to appraise current practices in each of these areas and to allocate responsibility for an effective program among staff agencies, foremen, and higher line officers. Special attention will be given to the growing impact of labor unions upon the development of personnel policies.

SPECIAL SEMINARS AND INSTITUTES

In addition to the regular Summer Session program, the School of Industrial and Labor Relations will conduct a series of one-week seminars in specialized areas of industrial relations. These seminars are designed for "practitioners," and consequently each will give specific emphasis to an operational area of the field. The titles and dates for these seminars are as follows:

Personnel Selection and Placement (July 13); Conference Leadership (July 20); Health, Welfare, and Pension Plans (July 27); and Communications and Community Relations (August 3).

A number of conferences and institutes will also be conducted by the School. A special announcement covering the total summer program of the School, including details of cost and content, may be obtained by writing to Conference Headquarters, New York State School of Industrial and Labor Relations, Cornell University, Ithaca, New York.

INDUSTRIAL EDUCATION

See *Education*, page 33.

LANGUAGES

The system of course numbering is the same for all languages offered by the Division. Courses 101 and 102 in a given language aim at bringing the student to a level of achievement sufficient to enable him to pass the Proficiency Examination and thus fulfill the language requirement for graduation. The courses are the equivalent of Courses 101 and 102 offered in the regular academic year.

Course 151 is designed to assist graduate students to prepare themselves for the reading examinations required by the Graduate School. This course is to be considered as a full-time program by the students, and the equivalent of six hours of undergraduate credit will be allowed. If fewer than eight students register for this course, the instruction given will be identical with that in 101.

All courses constitute a full academic program of six credit hours and consist of twenty hours of instruction each week at periods to be assigned. Registration for these courses will be closed when the capacity of the sections has been reached.

Frnch. 101. *FRENCH*. (U) 6 hours credit. Morrill. Mr. WEINGARTNER and staff.

Frnch. 102. *FRENCH*. (U) 6 hours credit. Prerequisite, French 101 or equivalent. Morrill. Mr. WEINGARTNER and staff.

Frnch. 151. *FRENCH*. (G) 6 hours credit. For graduate students acquiring reading proficiency. Morrill. Mr. WEINGARTNER and staff.

Germ. 101. *GERMAN*. (U) 6 hours credit. Morrill. Assistant Professor WHITE and staff.

Germ. 102. *GERMAN*. (U) 6 hours credit. Prerequisite, German 101 or equivalent. Morrill. Assistant Professor WHITE and staff.

Germ. 151. *GERMAN*. (G) 6 hours credit. For graduate students acquiring reading proficiency. Morrill. Assistant Professor WHITE and staff.

Span. 101. *SPANISH*. (U) 6 hours credit. Morrill. Mr. SOLA and staff.

Span. 102. *SPANISH*. (U) 6 hours credit. Prerequisite, Spanish 101 or equivalent. Morrill. Mr. SOLA and staff.

SPECIAL TWELVE-WEEK LANGUAGE COURSES

June 16 to September 4

Special courses of twelve weeks' duration will be offered in Chinese (Mandarin), Indonesian, and Russian. Instruction will begin on Wednesday, June 17, and will continue through Friday, September 4. Classes will meet for four to six hours per

day, five days a week. Students completing a full twelve-week course will receive twelve hours credit; students completing either the first or the second half of a course will receive six hours credit.

Courses 101-102 are for students with no previous knowledge of the languages concerned. Courses 251-252 and 361-362, with prerequisites as indicated, are for students who desire intermediate or advanced instruction in speaking, reading, and writing. The first half of each course, or its equivalent, is prerequisite to the second half.

Registration for these courses will take place from 9:00 a.m. to 12:00 m. on Tuesday, June 16, in Room 108, Morrill Hall. For the full twelve-week session, the tuition fee is \$220, the general fee, \$30; for either the first or second half of the session, the tuition fee is \$110, the general fee, \$15.

Students interested in taking these courses are urged to indicate their intention by writing to the Director, Division of Modern Languages, Morrill Hall, before May 15, 1953.

Chin. 101-102. *ELEMENTARY COLLOQUIAL CHINESE*. (U,G) 12 hours credit. Morrill. Associate Professor HOCKETT and staff.

Chin. 361-362. *ADVANCED CHINESE*. (U,G) 12 hours credit. Prerequisite, 360 or more contact hours of Chinese, including oral practice. Morrill. Professor SHADICK and staff.

Indon. 101-102. *ELEMENTARY INDONESIAN*. (U,G) 12 hours credit. Morrill. Associate Professor ECHOLS and staff.

Indon. 251-252. *INTERMEDIATE INDONESIAN*. (U,G) 12 hours credit. Prerequisite, 180 to 240 contact hours of Indonesian, including oral practice. Morrill. Associate Professor ECHOLS and staff.

Russ. 101-102. *ELEMENTARY RUSSIAN*. (U,G) 12 hours credit. Morrill. Associate Professor FAIRBANKS and staff.

Russ. 251-252. *INTERMEDIATE RUSSIAN*. (U,G) 12 hours credit. Prerequisite, 180 to 240 contact hours of Russian, including oral practice. Morrill. Associate Professor FAIRBANKS and staff.

PHYSICAL SCIENCES AND MATHEMATICS

ASTRONOMY

Astro. 20. *THE PHYSICAL UNIVERSE*. (U,G) 2 hours credit. M T W Th F 10. Astronomy Bldg. 100. Professor SHAW.

Survey of the known universe including planets, comets, meteors, the sun, stars, our galaxy, and extragalactic systems. Telescopes and spectroscopy. Problems of space travel and cosmogony. Observational work at Fiertes Observatory.

Astro. 30. *WORKSHOP IN SECONDARY SCHOOL ASTRONOMY*. (U,G) 2 hours credit. M T W Th F 12. Astronomy Bldg. 100. Professor SHAW.

An analysis of the general science unit in astronomy with a view to strengthening its effectiveness as a preparation for the appreciation and solution of problems arising from man's conquest of space. Curriculum content. Demonstration materials and techniques. Sources of supply. Model construction, group projects, and celestial observation. Teachers should bring to the course the texts of general or earth science which they have used or intend to use in their own classes.

CHEMISTRY

*Chem. 105-106. *GENERAL CHEMISTRY*. (U) 6 hours credit. Lectures and recitations, M T W Th F 8-10, Baker 200; laboratory, M T W Th F 10-1, Baker 150. Dr. PLANE and assistants.

For those students who intend to take more chemistry, this course serves as a prerequisite to the more advanced courses in chemistry. Secondary school chemistry is not a prerequisite. The course may be elected by students who do not intend to take more chemistry.

Emphasis on the more important chemical principles and facts, on the scientific method, and on the relation of chemistry to the other fields of knowledge and to everyday life. Texts: Laubengayer, *General Chemistry*; Laubengayer, *Laboratory Manual and Problems in General Chemistry*. Laboratory fee, \$10.

*Chem. 201. *INTRODUCTORY QUALITATIVE ANALYSIS* (short course) (U,G) 4 hours credit. Prerequisite, general chemistry. Lectures, M T W Th F 8, Baker 7; laboratory, three hours daily except Saturday between 9 and 1, Baker 50. Assistant Professor SCHERAGA and assistant.

A study of the properties and reactions of the common elements and acid radicals, and their detection in various solutions. Texts: Hogness and Johnson, *Qualitative Analysis and Chemical Equilibrium*; Heisig, *Semi-micro Qualitative Analysis*. Laboratory fee, \$15.

Chem. 205. *INTRODUCTORY QUALITATIVE ANALYSIS*. (U,G) 3 hours credit. Prerequisite, general chemistry. Chemistry 207 must be taken with 205. Lectures, M T W Th F 8. Recitations, T Th 9. Baker 7. Assistant Professor SCHERAGA.

A study of the application of the theories of general chemistry to the systematic separation and detection of the common elements and acid radicals. Text: Hogness and Johnson, *Qualitative Analysis and Chemical Equilibrium*.

*Chem. 207. *INTRODUCTORY QUALITATIVE LABORATORY*. (U,G) 3 hours credit. Prerequisite, general chemistry. Must be taken with Chemistry 205. Laboratory, M W F 9-1 and T Th 10-1. Baker 50. Assistant Professor SCHERAGA and assistant.

A study of the properties and reactions of the common elements and acid radicals, and their detection in various solutions. Text: Heisig, *Semi-micro Qualitative Analysis*. Laboratory fee, \$15.

*Chem. 215. *INTRODUCTORY QUANTITATIVE ANALYSIS*. (short course). (U,G) 4 hours credit. Prerequisite, qualitative analysis. Lectures, M T W Th F 8. Baker 177; laboratory, three hours daily except Saturday between 9 and 1, Baker 252. Professor NICHOLS and assistant.

A study of the fundamental principles of gravimetric and volumetric analysis, and the analysis of various substances by these methods. Texts: Pierce and Haensch, *Quantitative Analysis*; Nichols and Morse, *Laboratory Manual of Introductory Quantitative Analysis*. Laboratory fee, \$15.

Chem. 220. *INTRODUCTORY QUANTITATIVE ANALYSIS*. (U,G) 3 hours credit. Prerequisite, qualitative analysis. Chemistry 222 must be taken with 220. Lectures, M T W Th F 8. Recitations, T Th 9. Baker 177. Professor NICHOLS.

A study of the fundamental principles of gravimetric and volumetric analysis with practice in stoichiometry. Text: Pierce and Haensch, *Quantitative Analysis*.

*Chem. 222. *INTRODUCTORY QUANTITATIVE LABORATORY*. (U,G) 3 hours credit. Prerequisite, qualitative analysis. Must be taken with Chemistry 220. Laboratory, M W F 9-1 and T Th 10-1. Baker 252. Professor NICHOLS and assistant.

Laboratory practice in the preparation and standardization of various volumetric solutions and the analysis of a variety of substances by volumetric and gravimetric methods. Text: Nichols and Morse, *Laboratory Manual of Introductory Quantitative Analysis*. Laboratory fee, \$15.

Chem. 303. *ELEMENTARY ORGANIC CHEMISTRY*. (U,G) 4 hours credit. Prerequisite, general chemistry. Qualitative analysis is desirable but not required. Chemistry 305 must be taken with Chemistry 303. Lectures, M T W Th F 8-10. Baker 207. Dr. PHILLIPS.

A study of aliphatic and aromatic organic compounds, their occurrence, relations, and uses. Text: English and Cassidy, *Principles of Organic Chemistry*.

*Chem. 305. *ELEMENTARY ORGANIC LABORATORY*. (U,G) 2 hours credit. Prerequisite, general chemistry; qualitative analysis is desirable but not required. Must be taken with Chemistry 303. Laboratory, M T W Th F 10-12:30. Baker 250. Dr. PHILLIPS and assistant.

Laboratory experiments on the preparation and reactions of typical organic compounds. Text: Adams and Johnson, *Laboratory Experiments in Organic Chemistry*. Laboratory fee, \$15.

*Chem. 306. *ORGANIC LABORATORY*. (U,G) 2 hours credit. Prerequisite, Chemistry 303 and 305. Laboratory, M T W Th F 10-12:30. Baker 250. Dr. PHILLIPS and assistant.

A continuation of Chemistry 305. Text: Adams and Johnson, *Laboratory Experiments in Organic Chemistry*. Laboratory fee, \$15.

Chem. 307. *INTRODUCTORY ORGANIC CHEMISTRY*. (U,G) 3 hours credit. Prerequisite, general chemistry; qualitative analysis is desirable but not required. Lectures and written reviews, M T W Th F 8, and also at 9 during the first three weeks. Baker 207. Dr. PHILLIPS.

A study of the more important compounds of carbon, their occurrence, methods of preparation, relations, and uses. The work covered is equivalent only to the first half of the year course; students who wish a complete course should register for Chemistry 303 and 305. Text: English and Cassidy, *Principles of Organic Chemistry*.

*Chem. 311. *INTRODUCTORY ORGANIC LABORATORY*. (U,G) 3 hours credit. Prerequisite or parallel course, Chemistry 307. Laboratory experiments and oral reviews, M T W Th F 10-12:30. Baker 250. Dr. PHILLIPS and assistant.

The student prepares typical compounds of carbon and familiarizes himself with their properties, reactions, and relations. Text: Adams and Johnson, *Laboratory Experiments in Organic Chemistry*. Laboratory fee, \$20.

GEOLOGY

*Geol. 101-102. *GENERAL GEOLOGY*. (U) 6 hours credit. Lectures, M T W Th F 9-11; laboratory, M T W Th F 2-4:30. McGraw. Professor WELLS and assistant.

The course comprises an introduction to the various branches of geologic science: mineralogic, lithologic, geomorphic, structural, glacial, historic, and economic. The purpose of the course is to provide an adequate base for those who will major in geology and a comprehensive survey of earth science for the general

student. One of the laboratory periods will be spent in the field to interpret the local geology. Laboratory fee, \$3; excursion fee to be announced at first class session, probably about \$6.

Geol. 901u. *SUMMER FIELD SCHOOL IN GEOLOGY*. (U,G) 6 hours credit. Professor NEVIN. June 15-July 25.

Registration limited to men. For full information write to the Department of Geology and Geography, McGraw Hall.

MATHEMATICS

Math. 162. *ANALYTIC GEOMETRY AND CALCULUS*. (U) 3 hours credit. Prerequisite, Mathematics 161 or the equivalent. M T W Th F S 10. White 103. Associate Professor FUCHS.

Differentiation and integration of algebraic, trigonometric, logarithmic, and exponential functions, with applications. Related topics, including polar coordinates, parametric equations, and vectors. A knowledge of basic analytic geometry and of differentiation and integration of polynomials (with applications) is assumed.

Math. 163. *ANALYTIC GEOMETRY AND CALCULUS*. (U) 3 hours credit. Prerequisite, Mathematics 162 or the equivalent. M T W Th F S 10. White 121. Assistant Professor SHAPIRO.

Infinite series, solid analytic geometry, partial derivatives, and multiple integrals.

Math. 201. *DIFFERENTIAL EQUATIONS*. (U,G) 3 hours credit. Prerequisite, Mathematics 163 or the equivalent. M T W Th F S 11. White 103. Associate Professor FUCHS.

Solution of ordinary differential equations by analytic and numerical methods.

Math. 405. *HIGHER GEOMETRY*. (U,G) 3 hours credit. Prerequisite, Mathematics 163 or the equivalent. M T W Th F S 9. White 121. Assistant Professor SHAPIRO.

A comparison of the synthetic and analytic methods in Euclidean, affine, and projective geometries.

Math. 501. *ADVANCED CALCULUS*. (U,G) 3 hours credit. Prerequisite, Mathematics 163 or the equivalent. M T W Th F S 11. White 211. Dr. HAMILTON.

This course treats the logical foundations of the elementary calculus. Topics include the construction of the real number system, limits, continuity, the derivative and its properties, the mean value theorem. If time permits, an introduction to Riemann integration will be given.

PHYSICS

*Phys. 103. *INTRODUCTORY EXPERIMENTAL PHYSICS*. (U,G) 3 hours credit. Demonstration lectures, M T W 8, Rockefeller A; recitations, M T W 9, Rockefeller 103; three laboratory periods, Th F 2-4 and one as arranged, Rockefeller 220. Assistant Professor MOORE.

Mechanics, heat and sound. Text: Stewart and Gingrich, *Physics*. Laboratory fee, \$5.

*Phys. 104. *INTRODUCTORY EXPERIMENTAL PHYSICS*. (U,G) 3 hours credit. This course must be accompanied by 103 or preceded by a study of mechanics in either high school or college physics. Demonstration lectures, Th F

S 8, Rockefeller A; recitations, Th F S 9, Rockefeller 103; three laboratory periods, T W 2-4 and one as arranged, Rockefeller 220. Assistant Professor MOORE. Electricity and light. Text: Stewart and Gingrich, *Physics*. Laboratory fee, \$5.

Phys. 115. *MECHANICS*. (U) 3 hours credit. A course for students of engineering with a deficiency in physics. M T W Th F 8 and M 2-4, Rockefeller 107. Associate Professor NEWHALL. Text: Sears-Zemansky, *College Physics, Part I*.

*Phys. 117. *ELECTRICITY AND MAGNETISM*. (U,G) 3 hours credit. Prerequisite, Physics 115 and Calculus or simultaneous registration in Mathematics 163. Lectures, T Th 9, Rockefeller A; recitation, M T W Th F 8, Rockefeller 105; laboratory, T Th F 2-4:30, Rockefeller Annex. Professors NEWHALL and TOMBOULIAN.

This course constitutes the third term of a four-term sequence in general physics required of students in engineering. The course includes fundamentals of electricity and magnetism of the sequence. Text: Sears, *Principles of Physics, II: Electricity and Magnetism*. Laboratory fee, \$5.

Phys. 225. *ELECTRICITY AND MAGNETISM*. (U,G) 3 hours credit. Prerequisite, Physics 117 or 206. Lectures, M T W Th F 10, S 11. Rockefeller 104. Professor TOMBOULIAN.

An introduction to the theory of the electromagnetic field. Static and dynamic fields, dielectrics and properties of magnetic materials, the field equations and electromagnetic waves in free space, the Poynting vector.

PSYCHOLOGY AND PHILOSOPHY

PSYCHOLOGY

Psych. 101. *INTRODUCTION TO PSYCHOLOGY*. (U) 2 hours credit. M T W Th F 9. Goldwin Smith C. Dr. WADDELL.

An introduction to the scientific study of behavior and experience, covering such topics as perception, motivation, emotion, learning, the higher thought processes, personality and individual differences. This course is prerequisite to further work in the Department.

Psych. 216. *PSYCHOLOGY OF LEARNING*. (U) 2 hours credit. M T W Th F 12. Morrill 340. Assistant Professor LAMBERT.

This course will discuss the several social settings in which learning occurs in home, peer group, classroom, and on the job. The general approaches on the process of learning will be reviewed with emphasis on some of the practical and research usefulness of the theories that have been advanced. Data on the effects of different conditions of learning on values and personality in our own and other cultures will be reviewed.

Psych. 323. *SOCIAL PSYCHOLOGY*. (U) 2 hours credit. Prerequisite, at least 3 hours in Psychology. M T W Th F 10. Morrill 340. Assistant Professor LAMBERT.

Problems of social behavior will be considered in the light of underlying psychological principles of motivation, perception, and learning. Among the topics to be discussed are socialization, language, attitudes, and group dynamics, as well as problems of aggression, prejudice, and leadership.

Psych. 351. *PSYCHOLOGICAL TESTS*. (U,G) 3 hours credit. With consent of the instructor, this course may be taken without observations for two hours

credit, M T W Th F 9; observational hours to be arranged. Morrill 340. Professor FREEMAN.

Concepts of intelligence; individual and group tests of intelligence; principles underlying their construction and interpretation; use of tests in schools, in the armed services, and in other fields. Lectures, reading, and observations of individual testing.

Psych. 405. *ABNORMAL PSYCHOLOGY*. (U,G) 2 hours credit. Prerequisite, at least 6 hours in Psychology. M T W Th F 11. Morrill 310. Dr. WADDELL.

A study of the principal behavior disorders from the point of view of their implications for the understanding of normal people.

Psych. 413. *PSYCHOLOGY OF EXCEPTIONAL CHILDREN*. (G;U by permission) 2 hours credit. M T W Th F 11. Morrill 340. Professor FREEMAN.

Designed to give a scientific understanding of children who deviate from the usual: the gifted, the feeble-minded, the delinquent, those having special abilities and disabilities, those having personality defects and those having sensory and physical handicaps. Lectures, reading, and case studies. Students who have not had or are not now taking a course in mental measurements may be admitted only with approval of the instructor.

PHILOSOPHY

Phil. 103. *ELEMENTARY LOGIC*. (U) 2 hours credit. M T W Th F 9. Goldwin Smith 234. Professor BLACK.

Problems arising in the attempt to think accurately, clearly, and successfully. The course is intended for those who have no special interest in studying symbolic logic or in doing more advanced work. The emphasis is practical, general principles being introduced only to the extent that they bear upon logical problems that the student is likely to encounter elsewhere. Special attention is given to problems arising from the relations between thought and language—or "semantics." Topics include the nature of deductive argument, conditional argument, the syllogism, definition, ambiguity, fallacies, the elements of inductive argument and scientific method. Text: Black, *Critical Thinking* (2d ed.).

Phil. 420. *INTRODUCTION TO PHILOSOPHY OF SCIENCE*. (U,G) 2 hours credit. M T W Th F 11. Goldwin Smith 234. Professor BLACK.

Analysis of the main concepts and presuppositions of scientific method. The emphasis is upon understanding the meaning of basic scientific terms such as observation, experiment, cause, law, theory, measurement, construct. Examples from the history of science are used mainly for purposes of illustration. No knowledge of scientific subject matter beyond the high school level is necessary for success in the course, though special work can be arranged for students with more extensive scientific or philosophical background. Texts: Campbell, *What Is Science?*, mimeographed notes, selected readings.

Phil. 039. *INFORMAL STUDY*. (G) Credit and hours to be arranged. Open to graduate students with the consent of the instructor. Professor BLACK.

SOCIAL SCIENCES

ECONOMICS

Econ. 101. *ELEMENTS OF ECONOMICS*. (U,G) 4 hours credit. M T W Th F 10-12. Goldwin Smith 264. Mr. DINCE.

A survey of the existing economic order in the United States, its more salient and basic characteristics, and its operations. This course or its equivalent is prerequisite to all other courses in economics.

Econ. 203. *MONEY AND BANKING*. (U,G) 2 hours credit. Prerequisite, Economics 101 or its equivalent. M T W Th F 10. Goldwin Smith 256. Professor SULTAN.

A study of our monetary system and its functioning. The course will include a survey of our monetary history, followed by a detailed analysis of the relationship between money, bank credit, interest rates, and prices. The investment policies of individual banks, of the banking system as a whole, and especially of the Federal Reserve system will be examined. International finance and foreign exchange, inflation and deflation, price level stabilization, and similar problems will be included in the discussion.

Econ. 311. *CORPORATION FINANCE*. (U,G) 2 hours credit. Prerequisite, Economics 101 or its equivalent. M T W Th F 11. Goldwin Smith 242. Professor HOFFMAN.

A study of the financial practices of business corporations in the United States; types of corporate securities; sources of capital funds; determination and administration of corporate incomes; financial difficulties and corporate reorganizations; the relation of corporate practices to the functioning of the American economic system; and the regulatory activities of the Securities and Exchange Commission.

Econ. 325. *COMPETITION AND MONOPOLY*. (U,G) 2 hours credit. Prerequisite, Economics 101 or its equivalent. M T W Th F 10. Goldwin Smith 242. Professor HOFFMAN.

The role of competition, monopoly, and public policy in various politico-economic philosophies, and, specifically, in a private enterprise economy. A study and evaluation of the American system of business organization, its price and production policies, and public policies of implementation and regulation.

Econ. 401. *LABOR PROBLEMS*. (U,G) 2 hours credit. Prerequisite, Economics 101 or its equivalent. M T W Th F 9. Goldwin Smith 256. Professor SULTAN.

A survey and analysis of the nature and impact of the American trade union movement. Special attention will be given to various interpretations of the function and direction of the trade union movement, the history of the labor movement, and the underlying forces and techniques of the collective bargaining process. Attention will also be given to government policy towards collective bargaining, wage theories, and their relevance to the labor movement, problems of wage, pressures in a full-employment economy, and labor's role in a mobilization economy.

GOVERNMENT

Govt. 104. *COMPARATIVE GOVERNMENT: GREAT BRITAIN AND FRANCE*. (U,G) 2 hours credit. M T W Th F 9. Boardman 320. Mr. ROELOFS.

A survey of the political institutions of Britain and France with special reference to the working and problems of the cabinet system.

Govt. 236. *THE AMERICAN DEMOCRATIC IDEAL*. (U,G) 2 hours credit. M T W Th F 11. Boardman 321. Mr. ROELOFS.

A discussion of the "traditional" American political philosophy in an effort to discover what that political philosophy has been in our history and how it can be adapted to modern world conditions.

HISTORY

Hist. 426. *GERMANY SINCE 1871*. (U,G) 2 hours credit. M T W Th F 8. Boardman 321. Professor DORPALEN.

Deals intensively with the cultural development of modern Germany, the Empire, the Weimar Republic, and the Third Reich.

Hist. 427. *EUROPE SINCE 1914*. (U,G) 2 hours credit. M T W Th F 10. Boardman 320. Professor DORPALEN.

The first and second World Wars, separated by the twenty-year Armistice—with particular emphasis on the challenges of Fascism and Communism, the struggle of democratic governments for survival and the trend toward unification.

Hist. 715. *THE RISE OF JACKSONIAN DEMOCRACY, 1815-1837*. (U,G) 2 hours credit. M T W Th F 9. Boardman 321. Professor FRANKLIN.

An intensive study of the general history of the United States during the period. Particular attention will be given to the forces and issues that made possible the emergence of a new type of national leadership, exemplified in the person of Andrew Jackson.

Hist. 716. *HISTORY OF THE SOUTH SINCE 1877*. (U,G) 2 hours credit. M T W Th F 11. Boardman 320. Professor FRANKLIN.

A critical examination of the origins of the New South and a careful study of the social, economic, and political developments in the region. Attention will be given to the relationship of the South with the rest of the country and especially with the federal government.

Hist. 735. *NEW YORK STATE IN THE NINETEENTH AND TWENTIETH CENTURIES*. (U,G) 2 hours credit, undergraduate students; 2 or 4 hours credit, graduate students. M T W Th F 8. Mann Library. Mrs. Fox.

Economic, social, and political developments will be traced in terms of New York's position in the national scene. The seminar will be held in the Collection of Regional History, a manuscript division with a large variety of source materials for nineteenth-century New York. These will be drawn upon for lectures, discussions, and the writing of term papers. The techniques of using primary materials will receive particular emphasis.

SOCIOLOGY, ANTHROPOLOGY, AND RURAL SOCIOLOGY

R.Soc. 1. *INTRODUCTION TO SOCIOLOGY*. (U) 2 hours credit. M T W Th F 9. Warren 31. Associate Professor REEDER.

An introduction to the study of societies: the structure and function of institutions and social classes; social factors in personality formation and development; and a consideration of selected social problems in American society.

R.Soc. 32. *METHODS OF WORKING WITH GROUPS*. (U,G) 2 hours credit. M T W Th 11-12:20. Warren 31. Associate Professor REEDER.

Study and application of methods, techniques, and principles which are basic to group productiveness, satisfying interpersonal relations and leadership development of group members. Designed especially for leaders of groups, advisers of groups, and teachers who are interested in using group methods in their teaching.

R. Soc. 44. *THE SCHOOL IN ITS COMMUNITY RELATIONSHIPS*. (U,G) 2 hours credit. M T W Th F 10. Warren 132. Assistant Professor WHITE.

The first part of this course will be devoted to an examination of the theoretical

and philosophical concepts which underlie sound relationships between the school and the various other components of a community.

The remainder of the course will be devoted to developing operational patterns which strengthen community relationships and which strengthen the educational program through utilizing community resources.

Soc. 103. *MAN AND CULTURE: AN INTRODUCTION TO ANTHROPOLOGY*. (U,G) 2 hours credit. No prerequisite. M T W Th F 8. Morrill 240. Mr. SMITH.

A broad survey of the field of anthropology. Major emphasis on social anthropology. Topics include organization of cultural systems, culture change, and problems of cultural integration.

R.Soc. 128. *PUBLIC WELFARE PROGRAMS IN THE UNITED STATES*. (U,G) 2 hours credit. M T W Th F 9. Warren 232. Associate Professor TAIETZ.

The development of governmental responsibility for meeting economic and social needs. An analysis of the techniques, concepts, and issues underlying the organization and administration of public welfare programs.

R.Soc. 132. *LEADERSHIP*. (U,G) 2 hours credit. M T W Th F 9. Warren 132. Assistant Professor WHITE.

A study of professional and volunteer leadership in organizational programs.

About one-third of this course will be devoted to analyses of the objectives and motivations of organizations and their employees with respect to the relationship of these forces to leadership functions; parallel analyses of the objectives and motivations of volunteer people in leadership roles will be made.

The remainder of the course will be devoted to designing leadership activities which are maximally effective. Major emphasis will be given to volunteer leadership. Where possible, the course will be adjusted to take into account the immediate concerns of class members.

R.Soc. 137. *ADJUSTMENT IN THE MIDDLE AND LATER YEARS*. (U,G) 2 hours credit. M T W Th F 10. Warren 232. Associate Professor TAIETZ.

This course considers the adjustment in the middle and later years as a process of biological, psychological, and social change. Emphasis will be placed upon changes in role and status, marital and family relationships, living arrangements, and employment. The provisions, public and private, which have been developed to meet the aged person's economic, social, psychological, medical, recreational, educational, and housing needs will be described and evaluated.

Soc. 412. *CULTURE AND PERSONALITY*. (U,G) 2 hours credit. No prerequisite. M T W Th F 11. Morrill 240. Mr. SMITH.

A study of facts and theories of personality development in our own and other cultures, approached from the perspectives of psychology and of comparative cultural anthropology.

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Charles Williams Jones, Ph.D., Dean of the Graduate School.
Frederick Harry Stutz, Ph.D., Director of the Summer Session.

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CORNELL UNIVERSITY OFFICIAL PUBLICATION
Supplement to Volume 44, Number 18, February 24, 1953

Special Twelve-Week Language Courses

The tuition given on p. 55 for the special twelve-week courses applies only to Chinese 101-102, Indonesian 101-102, and Russian 101-102. The tuition for Chinese 361-362, Indonesian 251-252, and Russian 251-252 will be determined at a later date.

Industrial and Labor Relations

The number and description for the course entitled Supervision of Industrial Education are incorrect as they appear on p. 33. The course should bear the number Educ. 630 and be described as follows:

"Study of the nature and purpose of educational supervision; fundamental principles of supervision; techniques and methods of supervision; the planning and organization of a supervisory program; the supervisor's responsibility for appraising the adequacy of equipment, materials, and supplies for instructional purposes; relationships of the supervisor to administrators and teachers; evaluation of student and teacher achievement."